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BACON'S
DESCRIPTIVE HANDBOOK
OF
AMERICA

COMPRISING

HISTORY, GEOGRAPHY, AGRICULTURE, MANUFACTURES, COMMERCE, RAIL-
WAYS, MINING, FINANCE, GOVERNMENT, POLITICS, EDUCATION,
RELIGION, CHARACTERISTICS, PUBLIC LANDS, LAWS, ETC.

BY

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P R E F A C E.

IN offering this Handbook of America to the English public, the Authors have been actuated by a desire to supply a want that has long been felt; nothing of the nature and scope of this volume having been heretofore attempted in England. It is not intended as a mere tourist's guide, neither is it a political or physical geography, still less a history; yet it comprises facts belonging to all these departments. It is designed to supply in a compendious form a copious mass of facts valuable alike to the statesman, the tourist, the capitalist, the emigrant, and in short every one desirous of having at hand a complete *vade mecum* of miscellaneous information concerning America and Americans. The prominent facts relating to the settlement of the country and the development of its agriculture, manufactures,

and commerce, the salient features of its educational system, religion, laws, finance, manners and customs, are all treated as fully as the limits of the volume allow.

As the Authors have been careful to collate all reliable facts of general interest, so they have been solicitous to exclude all opinions, prejudices, and speculations of a sectional or party character, being desirous rather of strengthening those sentiments of international amity which should subsist between England and America, and which are best promoted by whatever leads the two countries to a more intimate knowledge and thorough understanding of each other.

The work being devoted to the description of a country whose growth is so exceedingly rapid, it has been indispensable to resort to the very latest sources of information. A great portion of the statistical facts have been derived from the last official census, but wherever later information has been accessible, no trouble and expense have been spared to obtain it, resort being had in many instances to original sources of information at the seat of government. We are especially indebted to Messrs. Appleton for having furnished us with the advance sheets of the "American Annual Cyclopædia for 1865,"

in furtherance of our undertaking. Our acknowledgments are also due to John Pratt, Esq., a citizen of Alabama, whose extensive knowledge of American affairs has been of material advantage in the preparation of the work.



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INTRODUCTION.

FROM the memorable day when Columbus with his tiny fleet and adventurous crew left the harbour of Palos, in search of the *Ultima Thule* of the western ocean, the Western Hemisphere has never ceased to excite throughout Europe an unflagging interest. Successive generations read over and over again the wonderful story of its first discovery and settlement. It was the dawn of a new era. The marvellous event interested all ages and conditions of life. Philosophers regarded the New World as the New Atlantis of a higher and nobler humanity; the pious looked towards it as a new field for the promulgation of the gospel; the ambitious saw what Alexander had pined for in vain—new worlds to conquer; and the avaricious were filled with dreams of easily-acquired wealth. The cotemporaries of Columbus regarded the New World as literally an El Dorado of untold riches, wherein might be realized the poetic idea of the golden age; and while each successive exploration and discovery did much to dispel these sanguine illusions, they yet furnished fresh proofs of its immense extent and resources.

The field of discovery once opened by the genius of Columbus, thousands were eager to follow in his steps. Spain had taken the initiative, and continued to hold the foremost rank as long as an important discovery remained to be achieved on the continent; but every nation which could boast of a commerce worthy the name hastened to gratify its own ambition, or the curiosity or avarice

of its subjects, by sending out expedition after expedition, and gradually was mapped out the vast Atlantic coast of the New World.

North America was discovered by John Cabot under English auspices in 1497, the year before the discovery of the southern portion of the continent by Columbus; though neither Columbus nor Cabot were aware that they had discovered the continent, and the former died unconscious of the value of the boon he had conferred on mankind. From this time discovery and exploration advanced with rapid strides, especially when we consider the imperfect state of navigation in the sixteenth century. In less than fifty years from the time Columbus first set foot on the island of San Salvador, the discovery of the Pacific by Balboa had demonstrated that three thousand miles to the west of Europe there stretched, not a group of islands, but a vast though yet undefined continent. Within the same period De Soto had revealed still further the immense extent of the New World, by the discovery that a thousand miles from the Atlantic coast there coursed a river of such dimensions, as dwarfed by comparison the largest streams of Europe.

The era of settlement followed that of discovery. The doctrine of the right of prior occupancy being then, as now, a fundamental principle of international law, every maritime power of the Old World hastened to assert it. Only ten years after the discovery of the southern continent, Cortez sailed from Havannah for the conquest of Mexico. That magnificent region, together with the present gulf or cotton States, constituting half of the most valuable part of the North American continent, was mostly occupied and colonized by Spain. The French settled the Carolinas and the Canadas; and the Middle States were occupied by the Dutch and Swedes,

English colonization was as yet confined to the New England States and Virginia. Soon came the inevitable collision with the aborigines, with its equally inevitable result—their enslavement or extinction throughout the white settlements. The rights of the weak are easily disposed of in international disputes ; but a greater danger threatened the prosperity of the colonies than that consequent on Indian hostilities. The conflicting claims of a number of European nations had still to be adjusted by the sword or by treaty. It was also a question of vast import, whether the North American continent was, like Europe, to be divided and subdivided into a number of separate nationalities, with heterogeneous polities, languages, and social systems, or whether all these were to be moulded in one grand and symmetrical type.

In what manner this question might be decided, no one in that day could form any other than the most vague conjecture. But had it then been foreseen that the time would come when one language would be spoken from Baffin's Bay to the Mexican boundary, who could have foretold to what nation that surpassing glory would attach? The probabilities seemed strongest in favour of Spain, then the most powerful of European nations. She had far outstripped the rest of the world in the work of occupancy and colonization, and possessed all the prestige derived from the discovery of the continent. But the Spanish system of colonization had two fatal defects. It vainly attempted to base a substantial prosperity upon the enforced labour of the natives, while committing the yet greater blunder of debasing and deteriorating the fine old Iberian stock by mingling with it the blood of radically inferior races. The result was a race of mongrels, but little superior to the aboriginal tribes, and a semi-civilization, wherein was a grotesque mingling of Catholicism and

Paganism, of European tastes and customs with savage predilections and habits.

There were three other nationalities which competed for the possession and control of America. Sweden, under Gustavus Adolphus, had made settlements in Delaware; but the prestige and power of that nation did not long outlive the brief but glorious career of her great ruler. Holland was too much absorbed in a death struggle for national existence to spare any resources for the defence of distant dependencies, and the Dutch, after having, in 1651, driven the Swedes from Delaware, were, thirteen years afterwards, themselves ejected from all their American possessions. The same year saw England in the sole occupancy of the whole Atlantic coast from Maine to Florida. One rival, however, still kept the field. France, whose early explorers justly claim the credit of having first discovered the source and traced the course of the Mississippi River, had formed settlements along its banks and on the shores of the great lakes.

The English, more than a million in number, had established agricultural colonies; the French, mostly occupied with trade, numbered only about one hundred thousand. The traditional enmity of the two nations was still burning fiercely, and in the colonies, was fed by frequent collisions on the frontiers. The undisguised efforts made by the French about the middle of the eighteenth century to oppose the extension of British settlements by the erection of a cordon of forts on the Ohio, brought the territorial question to a speedy issue, and in 1754 the struggle known as the French and Indian war commenced. After a contest of seven years, the British flag waved triumphant over nearly the whole North American continent. This contest, although generally deemed of but little consequence in comparison with the war of independence which soon followed,

is invested with a peculiar interest for Englishmen. It was this war which for ever linked the best half of the western hemisphere to the destinies of the Anglo-Saxon race, making of it, indeed, literally a new England, sown with English homes and with English laws, manners, customs, institutions, and language.

The war of independence grew out of the war of 1754. The expenses attending the latter had been enormous—£50,000,000. An unwise attempt to transfer a portion of this burden to the colonies, while withholding from them the right of representation, resulted first in local collisions, and ultimately in the war of the revolution. The distance to be traversed by the British forces was great; the difficulty of transportation immense; the colonists were determined and united, while the English people were divided in opinion, and prosecuted the war with anything but energy. The result was what the best heads in Parliament had foreseen, “the loss of the brightest jewel in the British Crown.” Yet it had been a costly jewel, as had been shown by results of the war of 1754, and, in common with the other British possessions, would, doubtless, have always been a source of expense rather than profit. This, however, was not the view taken by Englishmen of that day. The disastrous issue of the struggle was universally considered an unmitigated calamity; and great was the cry of indignation raised against the administration of Lord North when the surrender of Cornwallis and his army to Washington on the memorable 19th of October, 1781, demonstrated the hopelessness of any further efforts to hold the colonies in subjection.

Before the termination of the war, the colonies had formed a temporary union, for the purpose of mutual defence, and the Articles of Confederation adopted for that end were superseded, in 1787, by the constitution of the

United States. This was the beginning of the republic. The constitution was ratified by all the States, and George Washington—to whose wisdom, patriotism, and fortitude, more than to any other cause, the country had been indebted for its independence—was elected first president.

During the remainder of the eighteenth century various causes combined to retard the progress of the country. Emigration for a while stood still, heavy taxation depressed the energies of the people, and every branch of industry was in a state of stagnation. Gradually, however, the national debt was liquidated, law and order were firmly established, the latent resources of the country began to be developed, and then commenced a career of national prosperity unexampled in the history of the world. The population increased with a rapidity never before witnessed, and manufactures and commerce increased even more rapidly than population. The Southern States were long debarred by climate and by reason of the institution of slavery, from a just share in the general prosperity. Cotton culture had already, it is true, been introduced, but it was not till the invention of the cotton-gin by Whitney in 1792 that it began to assume the national and even world-wide importance it afterwards attained. Prosperity now became as general as it was rapid, and the history of the United States—unlike the chronicle of civil tumult and foreign wars, which constitutes so much of the history of the East—presents a record of uniform progress pursued amidst almost unbroken peace. The unimportant difficulty with Tripoli, the brief maritime war of 1812, and the invasion of Mexico in 1845, constitute the only interruptions of a repose which continued from the close of the year 1782 till the commencement of 1861, a period of nearly eighty years.

The great civil war recently ended is the only event which has seriously menaced the unity and progress of the United States. That struggle was, however, but the explosion of moral elements preparatory to entering into a more intimate and compact union. The two vessels which, by a singular coincidence, first landed during the same year Puritans and negroes on the shores of America, had unconsciously sown the seeds of oligarchy and democracy side by side. These principles, so opposite in their nature, could exist together only so long as imperfect means of communication caused the two sections of the Union to be in effect separate communities. The growth of commerce and the increase of travel consequent upon the introduction of railways and steam navigation, brought them into closer and closer contact, until, like two clouds strongly charged with opposite electricities, they encountered each other with a shock which for a while seemed to threaten the existence of the nation. Now that peace again reigns over the vast area of the Union, as profound and apparently secure as if never disturbed, the great conflict may be regarded as a guarantee of future prosperity, rather than a proof of inherent weakness or defects in American institutions. The Republic already possessed, in a greater degree than any community of equal extent, ancient or modern, unity in laws, customs, manners, language. One antagonistic element still existed—the institution of slavery; and it only remained to remove this deformity in order to render complete the symmetry and unity of their institutions. This the social revolution of 1861 has accomplished, and thus every obstacle has been removed from the path of improvement. Possessed of boundless natural resources, free institutions, and an intelligent and energetic people, the future progress of the United States promises to be even greater than that which has characterized the past.

CHAPTER I.

GENERAL VIEW — MOUNTAINS — GEOLOGICAL FEATURES—SOIL—RIVERS—LAKES—CLIMATE—ZOOLOGY—VEGETATION.

GENERAL VIEW.

THE present domain of the United States occupies the central portion of the Continent of North America, extending from British Territory on the north to Mexico and the Mexican Gulf on the south, a distance of 1730 miles, and from the Atlantic Ocean on the east to the Pacific on the west, a distance of about 3000 miles. The area of the entire country is more than 3,000,000 square miles, with a frontier of 10,000 miles, more than half of which is composed of ocean and lake shores. Since the close of the revolutionary war in 1783, the limits of the Union have been extended by the purchase of Louisiana from France in 1803, and of Florida from Spain in 1819, which added to the national domain an area of 966,000 square miles. In 1846 Texas, with an area of about 318,000 square miles, was annexed, and in 1848 a portion of Mexico was acquired, measuring about 516,000 square miles; making an aggregate acquisition of 1,800,000 square miles during sixty-five years.

The Union was first formed by the confederation of Connecticut, Delaware, Georgia, Massachusetts, Mary-

land, New Hampshire, New York, New Jersey, North Carolina, Pennsylvania, Rhode Island, South Carolina, and Virginia, which are termed the "Original Thirteen States." This number has since been increased by the admission of twenty-three new States, viz.: — Alabama, Arkansas, California, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Michigan, Minnesota, Mississippi, Missouri, Nevada, Ohio, Oregon, Tennessee, Texas, West Virginia, and Wisconsin. These thirty-six States, with ten "Territories" and the District of Columbia, embrace the entire area of the country. The Territories are Arizona, Colorado, Dacotah, Indian Territory, Idaho, Montana, Nebraska, New Mexico, Utah, and Washington. More than half their area is embraced in the immense valley included between the Rocky Mountains and the Alleghanies, and bisected by the Mississippi River. A most remarkable feature of the United States is the low plain, from fifty to one hundred miles wide, which extends along the Atlantic coast. Beyond this plain the land rises towards the interior till it terminates in the Alleghanies. The rest of the country east of the Mississippi is agreeably diversified. The soil of the low country, except along the water-courses, is sandy, and comparatively unproductive; but the remainder has a strong fertile soil, capable of supplying a dense population. The Pacific slope is exceedingly diversified, abounding in wild and majestic scenery, and traversed by magnificent rivers. Much, however, of its interior is desert. The great California desert, indeed, is one of the dreariest regions of the world, the solitude being relieved only by a few oases in the neighbourhood of streams, or on the borders of the numerous lakes.

MOUNTAINS.

The territory of the United States is traversed by two principal mountain chains: the Alleghanies, extending from New Hampshire to Alabama; and the Rocky Mountains, extending from the British possessions to Mexico.

“Mountains that enfold,
In their wide sweep, the coloured landscape round,
Like groups of giant kings, in purple and gold,
That guard the enchanted ground.”

These chains divide the country into three distinct regions. The first of these is the Atlantic slope, including the eastern declivity of the Alleghany Mountains, and the basins drained by the rivers that flow from them to the ocean. The second is the basin of the Mississippi, or more properly of the Missouri, comprising the vast central valley watered by these rivers and their innumerable tributaries. The third region, or the Pacific slope, is enclosed between the shores of this ocean and the chain of the Rocky Mountains, which divides it from the former. Each of these divisions, surpassing most of the European kingdoms in size, has its own peculiar features, and is distinguished by soil, climate, and natural productions.

The Alleghanies consist principally of a long plateau, crested with several chains of mountains or hills, separated from each other by wide and elevated valleys. East of the Hudson the mountains are chiefly granite, with rounded summits, often covered at their tops with bogs and turf, and distributed in irregular groups without any marked direction. In Pennsylvania and Virginia they assume the form of long parallel ridges, varying in height from 2500 to 4000 feet, and occupying the breadth of one hundred miles. In the northern part of Georgia, where they terminate,

they again lose the form of continuous chains, and break into groups of nearly isolated mountains, some of which attain a considerable elevation. The Rocky Mountains are a continuation northward of the Cordilleras of Central America and Mexico, and traverse in several ranges an area 1000 miles from east to west, embracing in all its parts nearly 1,000,000 square miles. The most easterly of these ranges runs through the Territories of New Mexico, Colorado and Nebraska, and forms the dividing line between Dacotah and Washington. The next great range of the Rocky Mountains towards the west, is called the Wahsatch Mountains, lying south of Great Salt Lake. In Utah these mountains spread over a wide district, and the ridges of the several peaks lie in various directions. The western portion of the Rocky Mountain chain enters the United States on the south from Lower California, and soon branches into two ranges, the highest of which, the Sierra Nevada, runs at the distance of about 160 miles from the Pacific, while the inferior parallel ridges, known as the Coast Range, keep within 10 to 50 miles of the ocean, to mingle again with the Sierra Nevada, where Mount Shasta reaches an elevation of 14,000 feet.

The White and Monadnock Mountains, in New Hampshire; Mount Katahdin, in Maine; Mount Tom, Mount Holyoke, and Wachusett, in Massachusetts; the Catskills, Adirondacs, and Alleghanies, in New York; Schooley's Mount, in New Jersey; and Pilot Mountain, in North Carolina, are celebrated in their surpassing wildness and beauty, as indeed are all the great mountain ranges of both the Pacific and Atlantic slopes, and afford endless scenes of picturesqueness and sublimity.

GEOLOGICAL FEATURES.

If we draw a line from New York to the east end of Lake Ontario, the peninsula lying north-east between the St. Lawrence and the sea, consists of primitive interspersed with some patches of secondary rocks. From this line southward the country has a different geological character. A belt of alluvial soil, beginning at Long Island, extends along the shore of all the Southern States to Natchez, on the Mississippi, having an average breadth of a hundred miles, and probably including all Florida except some high ground in the interior. It is everywhere penetrated by the tide water in the rivers. On the west side of this is a region of primitive rocks from 100 to 200 miles broad, in which gneiss predominates. It embraces the eastern ridges of the Alleghanies with the rolling country at their foot. On the west side of this again is a long narrow zone of transition rocks, including the western ridges of the Alleghanies, and extending from Lake Champlain to the north-west angle of Georgia.

One of the most remarkable circumstances connected with the primitive rocks is the granite ridge which forms the boundary between the primitive and the alluvial regions. This ridge appears to have been the ancient line of the sea-coast in the Southern and Middle States, and very probably through Connecticut.

New England rests on a bed of granite and marble; the Middle States on sandstone and freestone; and the greater part of the Ohio River region has a foundation of limestone.

The oldest known strata in the crusts of the earth, the Laurentian series, consisting of gneiss, more or less granitic, quartz rock, limestones, dolomites, conglomerates, and in the upper portion of feldspathic rocks, occur in the

Adirondac region of northern New York. The Green Mountains, the White Mountains, and a greater portion of the New England States, consist of crystalline formations of a more recent date, marked by the absence of argillaceous, talcose, and chloritic schists, and by various other characteristics.

The next overlying series, known as the Huronian, and regarded by Murchison as the equivalent of the Cambrian sandstones, is found in Michigan and the southern shore of Lake Superior. Though these rocks have been classed as azoic, indications are found of their having been originally sedimentary deposits, abounding in organic bodies, the forms of which have been dislodged by the metamorphic action to which they have been subjected.

In Massachusetts, the central portion of North Carolina, and in Georgia, occur the oldest fossiliferous rocks, known as the "Taconic system," and characterized by ancient genera of trilobites. Some geologists maintain that some of the sandstones in Iowa and Minnesota should, by reason of their fossils, be placed in this system.

The crystalline and schistose strata of New England, the highlands of New York and New Jersey, and extending through the Appalachian chain to Alabama, have been variously classed, some considering that as they consist of feldspathic gneiss, quartz rocks, talcose, and chloritic slates, they form the base of the Appalachian system. Others consider them as the metamorphosed sandstones, etc., of the lower Silurian series.

From this range westward, the whole country to the Rocky Mountains, with the exception of the Ozark mountain region, in Southern Missouri, and a few localities in Wisconsin and the northern peninsula of Michigan, contain no crystalline rocks.

The lower Silurian limestones come up to the surface at Cincinnati, Ohio, at Frankfort, Kentucky, and at Nashville, Tennessee. The Carboniferous series whenever met with, is the uppermost formation, excepting in Illinois, Iowa, and Kansas, where the Permian strata have been recognized. The great plains that extend from the Missouri and up the valleys of the Arkansas, Red River, to the Rocky Mountains, are almost exclusively occupied by cretaceous rocks, sometimes overlaid with those of the tertiary age. Florida, Louisiana, and the coasts from Texas to Martha's Vineyard, are composed of the tertiary, the older strata cropping out inland.

The Cretaceous formation rests principally on the metamorphic belt of the Appalachian, rising to the higher platform of those rocks, the ascent south of New York being marked by the first or lowest falls of the rivers, and determining the head of their navigation. This formation passes across New Jersey and Northern Delaware, from New York Bay to the head of Chesapeake Bay, occurs at a few points in Virginia, near Wilmington, North Carolina, and through Central South Carolina and Georgia; thence it stretches in a broad continuous belt, through Central Alabama, Northern Mississippi, and Western Tennessee.

A narrow belt of red sandstone occurs along the lower valley of the Connecticut, continued through New Jersey, across Pennsylvania, into Virginia.

The newer Pliocene is met with only in a few localities in the southern part of Maine, and on the borders of Lake Champlain.

The drift formation covers all the northern part of the United States, the limit southward being lat. 40. The deposits of alluvium are mostly confined to the borders of the rivers and lakes, the most extensive and remarkable

alluvial tract being that around the mouth of the Mississippi, where it spreads out into a delta of broad area.

In the Rocky Mountains, the metamorphic rocks of the Appalachian are repeated on a grander scale. Between the numerous ridges are wide belts of the cretaceous strata and modern tertiary deposits. These form the plains and slopes which stretch out towards the Pacific. In the mountainous districts are found all the formations from the lower crystalline groups to the coal, often traversed by great dikes of trappean and other eruptive rocks.

Beyond the Sierra Nevada and Cascade Mountains, and on the Colorado River, is a volcanic district, extending to the Pacific. It consists chiefly of tertiary strata, which have been so broken up by movements of the crust and volcanic eruptions, as to present an excessively rugged and diversified structure.

The metals of the United States are principally found in the crystalline rocks, the exceptions being the copper region of Lake Superior, and some of the western lead and iron mines, frequently in sandstone.

In the Atlantic division, the metals follow the Appalachian range. In the Pacific division they follow the Rocky Mountain and Sierra Nevada ranges; the debris from which, swept down into the tertiary strata, have furnished these with the precious metals in large deposits.

Except a few small insulated fields, all the bituminous coal in the United States lies west of the Appalachian chain, where a vast series of coal-beds stretch from the mountains westwards through Ohio, Indiana, and Illinois, parts of Kentucky, Tennessee, and Alabama, into the State of Mississippi, and even as far as 200 miles beyond the Mississippi River. Anthracite coal, or that best suited for manufactures, lies at the northern extremity of this great field, in Pennsylvania, in the western parts of Virginia,

in part of Ohio, and in Illinois. In the central portion of the lower peninsula of Michigan is a coal-field of some extent, and another and larger one spreads over nearly the whole of Iowa, Northern Missouri, and a large part of Kansas.

SOIL.

The soil presents almost every variety, from dry sterile plains in the vicinity of the Great Salt Lake, to the rich alluvia of the Mississippi Valley. It may be divided into seven great divisions, indicated by the river systems of the country; viz., the St. Lawrence basin, the Atlantic slope, the Mississippi valley, the Texas slope, the Pacific slope, the inland basin of Utah (sometimes called the Great or Fremont basin), and the basin of the Red River of the North. 1. The St. Lawrence basin embraces parts of Vermont, New York, Pennsylvania, Ohio, Indiana, Illinois, Wisconsin, Minnesota, and all of Michigan; it is an elevated and fertile plain, generally well wooded. 2. The Atlantic slope includes all New England, except a part of Vermont, all of New Jersey, Delaware, the District of Columbia, South Carolina and Florida, and portions of New York, Pennsylvania, Maryland, Virginia, North Carolina, Georgia, Alabama, and Mississippi. It may be sub-divided into two regions, a North-East and a South-West section, separated by the Hudson River. The former is hilly, and generally better adapted to grazing than tillage, though some parts are generally fertile, and a large proportion is carefully cultivated. The South-West section may be again divided into a coast belt from 30 to 150 miles in width, running from Long Island round to the mouth of the Mississippi, and including the whole

peninsula of Florida, and an inland slope from the mountains towards this coast belt. The inland slope is one of the finest districts in the United States, the soil consisting for the most part of alluvium from the mountains, and the decomposed primitive rocks which underlie the surface.

3. The Mississippi valley occupies more than two-fifths of the area of the republic, and extends from the Alleghany to the Rocky Mountains, and from the Gulf of Mexico to British North America, including parts of New York, Pennsylvania, Maryland, Virginia, North Carolina, Georgia Alabama, Mississippi, Louisiana, Texas, New Mexico, Ohio, Indiana, Illinois, Wisconsin and Minnesota, and all of Kentucky, Tennessee, Arkansas, Missouri, Iowa, Nebraska, and Kansas. It is for most part a prairie country, of fertility unsurpassed anywhere on the globe, except perhaps the valleys of the Amazon and the Nile. At the north-west of the valley there is a desert plateau ranging from 200 to 400 miles, lying at the foot of the Rocky Mountains, at an elevation of from 2000 to 4000 feet above the sea, the greater portion of which is incapable of cultivation, owing to the deficiency of rain and want of means of irrigation, and a part naturally barren.

4. The Texas slope includes the country south-west of the Mississippi valley, drained by rivers which flow into the Gulf of Mexico, and embraces nearly all of Texas, and parts of New Mexico and Louisiana. It may be divided into three regions: a coast belt, wide, low and very fertile, especially in the river bottoms; a rich prairie extending from the coast belt, well suited for grazing; and a lofty tableland in the north-west, perfectly devoid of trees, and almost devoid of grass, and during a portion of the year completely parched with drought. Almost the only arable land in this last division is found in the valleys of the Rio Grande.

5. The Pacific slope embracing the greater part of California, Oregon, and Washington Terri-

tory, and parts of New Mexico and Utah, is generally sterile, though the valleys between the Coast range and the Cascade range and Sierra Nevada are very fertile ; as are also a few valleys and slopes among the Wahsatch and Rocky Mountains, though the latter are better adapted to pasturage than to agriculture. 6. The great inland basin of Utah, which includes, beside Utah, parts of New Mexico, California, Oregon, and Washington, is, probably, the most desolate portion of the United States. It abounds in salt lakes, and there are only a few valleys where the soil acquires by irrigation sufficient fertility to afford a support for man. 7. That portion of the basin of the Red River of the North which belongs to the United States, is confined to the small tract on the north part of Dacotah and Minnesota. It contains very productive lands, especially in the river bottoms.

On the east side of the Ozark chain of mountains is the Great Swamp, 200 miles long and 20 broad, which is converted into a lake by the annual overflow of the Mississippi, but is dry during the heats of summer, and rendered at all times impenetrable by a thick growth of cypress. The country round it is rush bottom or meadow land, clothed with excellent timber. Of the basin of the Mississippi altogether it may be observed that the western side is a barren desert; the middle contains much good land, but abounds in swamps; the east side, comprehending the basin of the Ohio, is the richest and most eligible for human habitation. Vegetation, especially the larger growth, increases continually as we advance from the Rocky Mountains to the Atlantic; a proof, perhaps, that the summer heat, and the quantity of atmospheric moisture follow a similar law.

RIVERS.

The chief rivers of the United States may be appropriately divided into three classes. FIRST.—The Mississippi, the “Father of Waters,” and its wide-spread branches, which drain the central region. SECOND.—The rivers east of the Alleghanies, which drain the Atlantic slope. THIRD.—The rivers west of the Rocky Mountains, which drain the Pacific slope. To these may be added the class of smaller rivers, which flow into the Gulf of Mexico from the southern slope of the Alleghanies and the north-western high lands of Texas.

The Mississippi River rises in a small lake named Itasca situated in the northern portion of Minnesota, near the British Possessions, and flows south-east about 500 miles to the Falls of St. Anthony, below which it is navigable for steamboats to the Gulf of Mexico, a distance of about 2700 miles. This river forms the eastern boundary of Iowa, Missouri, Arkansas, and the western boundary of Wisconsin, Illinois, Kentucky, Tennessee, and Mississippi, while it divides the State of Louisiana, flowing finally into the Gulf of Mexico through several mouths. It is computed to convey to the Mexican Gulf one thirty-eighth part of all the water which flows into the ocean, and drains an eminently fertile country of over one million square miles in extent. Its principal tributaries are the Wisconsin, Illinois, Ohio, and Yazoo rivers on the east; the Minnesota, Des Moines, Missouri, Arkansas, and Red rivers on the west. Of these the Ohio, the Mississippi, and its tributary the Missouri, form a grand natural highway for commerce many thousand miles in length. It has three bars at its mouth, the deepest of which affords only seventeen feet of water. Sloops of this draught can navigate to Natchez, 350 miles from its mouth.

There is depth sufficient at all times for steamers drawing twelve feet to the Ohio, and for steamers drawing three feet to the junction with the Missouri; but during the floods, which prevail during half the year, the waters rise fifty feet, and are then navigable by vessels of any size. Of the two great branches, the Missouri and the Mississippi proper, the former stream is the larger and more rapid, and also more turbid, from the quantity of travelled soil it transports; but its waters generally occupying a wider channel, are more obstructed with bars and sand-banks; and its navigation is more intricate and dangerous. The Platte, Kansas, and some other tributaries of the Missouri, often extend to a breadth of one or two miles, but during the warm season become almost dry. Yet these, and many of the branches of both rivers, generally admit of steamboat navigation for three-fourths of their course, during a longer or shorter period every year. The length of the Mississippi, from its mouth to the junction of the Ohio, is about 1200 miles, and to its junction with the Missouri, 1300. The length of the Missouri, above the junction to its remotest branch, is, by Lewis and Clarke's measurement, 2575 miles. The length of the Ohio above the point of confluence is 1188 miles. The other large branches of the Mississippi are the Red River and the Arkansas, in the lower part of its course. The chief tributaries of the Missouri are the Osage, Platte, Kansas, and Yellow Stone; of the Ohio, the Tennessee, Cumberland, Wabash, and Kanawha. The whole extent of the navigable waters above the confluence of the Missouri and Mississippi has been estimated at 23,000 miles, to which if we add 12,000 for the Ohio, Arkansas, Red River, etc., and their branches, we shall have 35,000 miles of boat navigation in the basin of the Mississippi.

From the mouth of the Missouri to the Gulf,

a distance of over twelve hundred miles, the average width of the Mississippi is one mile. The medial current is about four miles an hour, in one continuous flow, there being no tides.

The spring flood, owing to the vast extent of country drained, is very great. It usually commences in March, and does not begin to subside till the end of June.

From the mouth of the Ohio, as far down as Vicksburg, the water rises fifty feet. Here the flood begins to decline; at Port Hudson it seldom exceeds thirty feet, and at New Orleans twelve feet. The average depth of water at the lowest stage, from Vicksburg to the mouth, is 125 feet. Formerly, during the annual floods, it overflowed the land for 800 miles from its mouth, to a distance of from ten to thirty miles on each side, with the exception of an inconsiderable portion at Vicksburg, Baton Rouge, Port Hudson, and one or two other points, where the high land extends to the river.

The turbid waters of the river during these annual overflows contain a rich alluvial soil, swept from the north, and held in suspension by the rapid current, until its rapidity is checked by spreading over the adjacent swamps.

The quantity of sediment thus conveyed to the Gulf, or deposited upon the banks of the river in the lower part of its course, is immense; Sir Charles Lyell adopting the estimate of Dr. Riddle, of New Orleans, that the sediment is 1-3000th part of the volume of water, calculated the depth of the delta, or alluvial formation at the mouth, to be one-tenth of a mile; "the area of the delta being about 13,600 square statute miles, and the quantity of solid matter annually brought down by the river, 3,702,758,400 cubic feet, it must have taken 67,000 years for the formation of the whole." It has been estimated

that 40 per cent. of the water of the Mississippi is lost in the swamps of Missouri and Northern Arkansas alone, and as a proportionate, or more than proportionate, part of the sediment is deposited before reaching the Gulf, some idea may be formed of the immense quantity of alluvium added to the swamps and bottom-lands upon the banks.

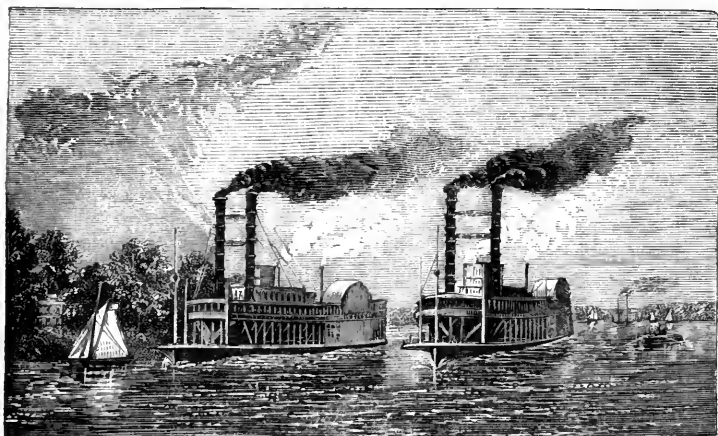
The freshets, while thus yearly adding to the "made land," as it is called, of the valley, sometimes reverse the process, and bear away to the Gulf many a fine domain.

The "made land" is extremely fertile, and along the banks of the river are a succession of the finest cotton and sugar plantations in the whole South. Extensive embankments have been constructed at great expense on each side of the river for nearly 1000 miles, to protect the land from inundation. They are from five to fifteen feet high, and the water at the time of the flood rises to within one foot of the top. Thus the entire country along the river is, at time of high water, much below the level of the river, and subject to occasional overflow by the breaking of the levees. The course of the river is constantly changing, and wherever the current strikes the bank, the light and sandy soil gives way, and often by a sudden freak of the river a portion of the levee is carried away before a new one can be thrown up in the rear of it, and the country for miles is inundated.

There have been numerous "cut-offs" made in this river by its forming a new channel across the isthmus of a large bend. The tide once turned across a peninsula, the resistless current soon carries everything before it; and the heaviest growth of timber being rapidly undermined, apparently furnishes no impediment to it. Whenever these cut-offs occur, the old channel gradually fills up, or forms a lake.

The accumulations of drift in some cases have become

so enormous that they have seriously obstructed navigation. Such an accumulation culminated in an arm of the river—the Atchafalaya—in the year 1816, having been gradually forming during a period of nearly forty years. It was ten miles in length, 600 feet wide, and eight feet deep, and although so unstable as to rise and fall with the river, was covered with trees of a considerable height. The State of Louisiana, after incurring heavy outlay for four years, at length succeeded in removing the obstruction.



STEAMERS ON THE MISSISSIPPI.

Of the upper tributaries of the Mississippi, the principal are the Des Moines, St. Croix, and Wisconsin, all navigable streams of some commercial importance. On the western, or Rocky Mountain slope, from which the “Father of Waters” receives at least three-fourths of its immense volume, by far the longest tributary is the Missouri.

The Missouri (mud river) properly forms one stream with the Mississippi, being much superior to the "Father of Waters" in length and volume at the point of confluence. It rises in Nebraska, near the boundary between that Territory and Oregon, among the Rocky Mountains. It has its source in several smaller streams. Running first north, then east, and finally assuming a general direction to the south-east, and forming a portion of the dividing-line of Nebraska, Iowa, and Kansas; it then flows through the entire State of Missouri, and joins the Mississippi 1410 miles from the debouchure of the latter into the Gulf of Mexico. The distance from its source to its junction with the Mississippi is 3096 miles, which, added to 1410 for the lower course of the latter, makes the whole length 4506 miles. The Missouri is navigable by steamboats without serious obstruction to the Great Falls, a distance of 2540 miles from the confluence of the Mississippi, or 3950 miles from the Gulf of Mexico! Its stream is turbid and rapid, and, as its name implies, unusually charged with sediment. Its width at its mouth is over half a mile, and in many places much greater. Its principal tributaries are the Yellow Stone, Little Missouri, Platte, or Nebraska, Kansas, Osage, Milk, Dacotah, Big Sioux, and Grand.

The Yellow Stone drains the larger part of Nebraska, and is 800 yards wide at its mouth. The Little Missouri is 300 miles long, the Platte 600 miles long, the Dacotah 500 miles, and the Great Sioux 300 miles in length. The Missouri, with its tributaries, drains an area of 519,400 square miles.

The St. Francis rises in the Ozark Mountains of Missouri, and flows into the Mississippi a short distance above Helena, and about 400 miles south of the mouth of the Missouri. The navigation, difficult and dangerous before,

was rendered even more intricate by the earthquake of 1811, when a considerable extent of country was submerged, and a lake fifty miles long and five to twenty miles in breadth, formed along the course of the river.

White River rises also in the Ozark Mountains, in north-west Arkansas, and after making a detour into southern Missouri, flows south into the Mississippi, twelve miles above the mouth of the Arkansas River. It is 600 miles in length, and is navigable for steamers 260 miles. Its principal tributaries are the Black and Spring rivers, which have a joint steamboat navigation of 150 miles.

The Washita waters the most beautiful, healthful, and fertile portion of the State of Arkansas. It is navigable for steamboats for about 350 miles from its mouth.

The Red River is formed by the confluence of two branches, of which the southern rises in New Mexico, and the northern in Texas. It empties into the Mississippi 341 miles from its mouth. The entire length of this stream is 2100 miles. It is subject to heavy inundations, which cause continual changes in its channel, and render the navigation somewhat intricate and dangerous. Shreveport, in north-west Louisiana, is the limit of navigation, being the point near which commences that immense collection of trees and drift wood known as "The Great Raft." This raft extends sixty or seventy miles up the river, and spreads out a distance of twenty to thirty miles, and has hitherto defied every effort made to remove it.

Arkansas River, after the Missouri, the longest branch of the Mississippi, rises in the Rocky Mountains, and after passing through the State of Arkansas, empties into the Mississippi. It has an unobstructed navigation far beyond the limits of the State of Arkansas, into the Indian Territory. Its total length is 2000 miles.

Of the tributaries and sub-tributaries of the Mississippi which rise in the Alleghany Mountains, south of the great lakes, the most considerable are the Illinois, the Wabash, the Ohio, the Cumberland, the Tennessee, and the Yazoo.

The Illinois rises in the north-eastern part of the State of Illinois, about forty-five miles from Lake Michigan, and empties into the Mississippi twenty miles above the mouth of the Missouri. It is 500 miles in length, and possesses a high-water steamboat navigation of 245 miles.

The Wabash has its source in Ohio, and flows into the Ohio River, 140 miles above the confluence of that river with the Mississippi. It is 550 miles long, and at high water navigable by steamboats a distance of more than 300 miles.

The Ohio River has its source in the head waters of the Monongahela and Alleghany. The Monongahela rises on the western slope of the Alleghany Mountains, in western Virginia, the Alleghany in western New York, and the junction of the two streams takes place at Pittsburg, Pennsylvania. Steamers of the larger class ascend the Monongahela sixty miles beyond Pittsburg; and the Alleghany is navigable by small steamers for 200 miles. The navigation of these streams, and that of the Ohio itself, is obstructed by ice during about two months of winter, and also for a month or two of summer by low water. The steamers plying between Louisville, Kentucky, and New Orleans, some of them between three and four hundred feet in length, are unsurpassed in elegance and speed by any in the world. The voyage of 1440 miles up the two rivers is often accomplished in less than five days.

The Ohio is a beautiful stream. Its charming valleys and picturesque cliffs so struck the imagination of the

early French settlers, that they gave it the appellation of "La Belle Riviere." The current is very gentle, averaging only about three miles an hour. The only falls of any note are those at Louisville, Kentucky. The descent here is twenty-two and a half feet to the mile, producing a rapid current, which, however, is easily ascended by boats during high water. This obstruction to navigation has been partially overcome by a canal admitting the passage of steamers of 180 feet in length. The Ohio contains over 100 islands. The area drained by this river and its branches is about 202,400 square miles. Its width varies from 1200 to 4000 feet. The navigable waters of the Ohio and tributaries are more than 5000 miles.

The Tennessee River forms the chief affluent of the Ohio which it joins at Paducah. It is navigable for steamboats nearly 800 miles. The scenery of the upper and middle Tennessee is extremely beautiful, the landscape being varied with verdant mountains, precipitous cliffs, and charming pastoral lands. In the neighbourhood of Chattanooga, where the Look-out Mountain lifts its bold crest, the view of the valley of the Tennessee, and the capricious windings of the river, is especially attractive. From some of the higher peaks near Chattanooga, the vision may range over the mountains and valleys of four States.

Cumberland River, a tributary of the Ohio, rises in the valley between the Laurel and Cumberland Mountains, and flows into the Ohio, fifty miles above the confluence of that river with the Mississippi. The Cumberland is nearly 600 miles long, and is navigable by steamboats to Nashville, Tennessee, a distance of 200 miles.

The Great Kanawha rises in the Blue Ridge, and flows through West Virginia into the Ohio. Its entire length is 400 miles, and it attains in some places a width of 500 yards. It is navigable by steamboats at all times to Charleston,

over 100 miles. The area drained by it and its affluents is more than 10,000 square miles. Along its banks are many fertile and beautiful valleys. It passes through a region abundant in coal and mineral springs, particularly in salt springs, which annually furnish a large quantity of salt. The Elk River, a branch of the Great Kanawha, is a beautiful stream flowing through West Virginia, and uniting with the latter river at Charleston. Its length is 200 miles, and it is navigable for more than half that distance.

The principal rivers which flow into the Gulf of Mexico are the Pearl, the Alabama, the Appalachicola, on the east, and the Brazos, Trinity, Sabine, Guadalupe, Rio Grande, and Colorado, on the west of the Mississippi.

The Chattahoochee, 500 miles in length, is navigable to Columbus, 350 miles. It is joined by the Flint River 100 miles from the Gulf, and forms the Appalachicola. This latter stream with its branches drains an area of about 20,000 square miles, and has a tide which extends about 60 miles.

The Alabama is formed by the union of the Coosa and Tallapoosa. It is navigable by large steamers at all seasons as far as Montgomery, about 300 miles. On its banks are some of the largest cotton plantations in the South, and the lands through which it passes are of great fertility.

The Tombigbee unites with the Alabama, and is navigable to Columbus, in Mississippi, 360 miles. The united streams form the Mobile River, which falls into Mobile Bay.

The Colorado, in Texas, is over 900 miles in length, and is navigable for a third of that distance by small steamers. It is a clear and beautiful stream, flowing through a country of great fertility.

The Brazos, in Texas, the next largest river to the Colorado, is 900 miles in length, navigable by steamboats

to Washington, 300 miles, at high water, and to Columbia 40 miles, at all times. The Trinity, in the same State, is 550 miles in length, and navigable by steamboats 350 miles. The Sabine, the Guadalupe, and the San Antonio are also navigable rivers in Texas.

The Rio Grande, 1800 miles in length, rises in the Rocky Mountains, and forms the boundary line between Texas and Mexico. Small steamers have ascended to Kingsbury, 450 miles.

The following are the principal rivers on the Atlantic slope. They all rise in the Alleghanies, except the Susquehannah and the Hudson:—

	MILES.		MILES.
Connecticut.....	400	Roanoke	230
Hudson	300	Pedee	290
Delaware.....	320	Santee	300
Susquehannah	350	Savannah	280
Potomac	260	Mohawk	200
James River	200		

The Hudson, also known as “the North River,” has its source in the Adirondac Mountains, whence it flows in two small streams, which unite after a distance of 40 miles. Its length is about 300 miles, and below Albany its breadth varies from 300 to 900 yards, and at Tappan Bay, 20 miles above New York, it widens to the extent of four or five miles. The steamers on the Hudson are among the finest in the world, and to it belongs the honour of having borne the first steamboat that was ever launched. The Hudson is celebrated for the beauty of its scenery, and is navigable for ships to the town of Hudson, 130 miles from its mouth, and for steamboats to Troy, 170 miles. This peculiar advantage has made it the scene of a more active inland trade than any river, perhaps, in the

world, of the same magnitude. The Mohawk, a tributary of the Hudson, enters it about three miles above Troy. Its length is about 200 miles, and it affords abundant water power at several places. The Susquehannah is a beautiful river of Pennsylvania and Maryland, and is formed by the junction of two branches, which unite 60 miles above Harrisburg. Its length is about 350 miles, and its width varies from 300 yards to a mile. It has many beautiful islands, and the channel is frequently obstructed by rapids; navigation is therefore difficult. The Connecticut, the largest river in New England, is a most picturesque and beautiful stream. Its source is a few miles beyond Connecticut Lake, through which it passes. Its entire length is about 400 miles, and its width varies from 150 to 1000 feet. It is navigable for vessels drawing eight feet of water to Hartford, a distance of 50 miles. The Delaware is navigable to Philadelphia, 40 miles from its mouth, for the largest ships, and to Trenton Falls, 35 miles above, for sloops. The Potomac is navigable for 200 miles from the ocean, to Georgetown, in the District of Columbia, and for ships of the largest dimension to Washington, the national capital. The James River, in Virginia, 450 miles long, is navigable for steamboats and sloops to Richmond. The Savannah is navigable for large vessels to the city of Savannah, 17 miles, and for boats to Augusta, 130 miles.

Tide navigation reaches a very short way up the great rivers in the Northern States; but in those south of the Susquehannah, it reaches generally from 100 to 130 miles. Boats ply on these rivers much further up, but the navigation is seldom uninterrupted.

The principal river of the Pacific slope is the Columbia, 1500 miles in length. The mouth of this river is obstructed by flats, but vessels of 300 tons can ascend a distance of 125

miles. Besides this river, there are the Sacramento and Colorado in California. The Sacramento River drains the great central valley of the State of California, and is navigable to Sacramento, a distance of 50 miles, and generally for small steamers for 150 miles further. Its whole length, including the Pitt River, is 500 miles. The Red River of the North rises in a collection of small lakes in Minnesota. It runs north, and after a course of 500 miles, empties into Lake Winnipeg, in British America. Its branches are very numerous.

LAKES.

The United States boast of more extensive lakes than any other country, especially in the Northern parts. The great chain of Northern lakes—Superior, Michigan, Huron, St. Clair, Erie, and Ontario—extend a distance of more than 1400 miles. Lake Superior, the largest and most westerly of the great chain, is about 400 miles in length, and its greatest breadth over 160 miles. Its estimated area is 32,000 square miles. The surface is about 600 feet above the Atlantic, and its mean depth is 900 feet. It is the largest body of fresh water on the globe. The waves on this lake are said to be as high as those of the Atlantic, and the storms which brush over it are equally severe and violent.

Lake Michigan is the largest lake in the United States. Its length is 350 miles, its greatest breadth about 90 miles. The surface is about 600 feet above the level of the sea; the depth about 900 feet; its area is estimated to be 22,000 square miles. The lake is gradually moving westward, its waters slowly receding from the Michigan

shore, encroach upon that of Wisconsin. It has also been proved that this lake has a tidal wave.

Lake Huron is about 280 miles in length, with an average breadth of seventy miles, including Georgian Bay it is 190 miles, and an estimated area of 21,400 square miles. The surface of the water is elevated 578 feet above the level of the sea. The depth of Lake Huron is greater than that of any other in the chain, averaging not less than 1000 feet. The water is remarkably clear. This lake is said to contain more than 3000 islands.

Lake St. Clair is a small body of water between Lakes Huron and Erie. Its extent is about 672 square miles.

The mean length of Lake Erie is about 240 miles, its breadth 40 miles, and its elevation above the level of the sea is 565 feet. Its surface is 333 feet above Lake Ontario, the great descent being made in the Niagara River, which connects the two lakes, and in which are the Niagara Falls. The peculiar features of Lake Erie are the shallowness of its waters, and the clayey nature of its shores.

Lake Ontario is the lowest and smallest of the chain, except St. Clair; it extends east and west about 180 miles, with an average breadth of thirty-five miles, and a depth of about 500 feet. The elevation of its surface above the sea, being 234 feet, its bottom is about as far below the level of the ocean as its surface is above it. On account of its great depth, it is less disturbed by storms. The area of the lake is computed at 6,300 square miles.

These great lakes are truly inland seas, and their navigation is subject to all the dangers which are incident to the navigation of the Baltic or the Mediterranean. With the exception of Lake Michigan, none of this chain of lakes lie wholly within the territory of the United States, the

others being in the Northern boundary, between the United States and the Canadas.

It is computed that this chain of lakes contains above 14,000 cubic miles of water, about three-quarters of all the fresh water on the globe. The extent of country drained by the lakes, from the north-western angle of Superior to the river St. Lawrence, including also the area of the lakes themselves, is estimated at 335,515 square miles.

On the borders of these lakes are many towns and cities, the growth of which is chiefly due to the extensive commerce carried on by vessels of every class. Oswego, Buffalo, Cleveland, Sandusky, Toledo, Monroe, Detroit, St. Joseph, Chicago, Milwaukie, Racine, and many smaller ports, have like nets, so to speak, accumulated a portion of the vast wealth that has rushed by them over the bosom of the lakes. Each of these ports has a large tonnage employed in the transportation of produce and merchandise. The following statement shows the number, kind, and tonnage of vessels engaged in this commerce of the lakes in 1860:—

	No.		Tonnage.
Steamers	122	.....	67,642
Screws	134	.....	59,784
Tugs	89	.....	10,700
Barques.....	58	.....	15,386
Brigs	78	.....	33,747
Schooners	1,030	.....	210,560
Total	1,511	.....	397,819

Of these the greater portion are American bottoms.

It appears probable from the topography of northern Illinois that the waters of Lake Michigan, at some past period flowed through the Illinois river down the valley of the Mississippi, to the Gulf of Mexico.

Many of the lakes in New England are scarcely surpassed anywhere for scenic effects. The most notable are Moosehead in Maine, Winnipisogee in New Hampshire, and Memphremagog, which is situated partly in Canada and partly in Vermont. Besides these, there are numerous large sheets of water in New England, which in Europe would be classed as lakes.

Lake George is a small but most picturesque sheet of water in eastern New York. It is thirty-six miles long, and varies from three-quarters to four miles in width. It is remarkable for the exceeding beauty of its scenery, its numerous small islands, and the exceeding transparency of its waters.

The central and western parts of New York contain several large lakes, of which Lake Champlain is the principal. Its extreme length is about 130 miles; its breadth varies from half a mile to fifteen miles, and it is navigable throughout for vessels of 100 tons.

In Wisconsin and Minnesota are a number of lakes. The beauty and size of those in the latter State constitute one of its most remarkable geographical features.

The most noted lakes in the Pacific region are the Tulare, in California, the Klanath, in Oregon, and the Pyramid and Great Salt Lake in Utah. The latter lies in a basin, or valley, of the Rocky Mountains, and is seventy-five miles long, by about thirty miles broad. Its surface is 4200 feet above the level of the sea. It has no outlet. The water is shallow, the depth in many extensive parts being not more than two or three feet. It is clear and transparent, but excessively salt, forming one of the purest and most concentrated brines in the world. No living thing has been found in it. It is so buoyant that a man may float in it with his body half out of the water. Though a bath in it is refreshing, the body requires to be

washed immediately in fresh water. The brine cannot be swallowed without danger of strangulation, and a particle of it in the eye causes great pain.

In Oregon there has recently been discovered a great sunken lake in the Cascade Mountains. The walls are almost perpendicular, averaging 2000 feet down to the water, and leaving no beach. The depth of the water is unknown, and its surface is smooth and unruffled, as it lies so far below the surface of the mountain that the air currents do not affect it. Its length is estimated at twelve miles, and its width at ten, and there is an island in its centre, having trees upon it. No man has ever been able to reach the water's edge.

The Atlantic coast is indented by many noble bays—those of Passamaquoddy, Massachusetts, Delaware, Chesapeake, being the principal. Several extensive sheltered inlets are formed by the islands off the coast, such as Long Island Sound, near New York, Albemarle, and Pamlico Sounds, in North Carolina. The coast of the Gulf of Mexico has also many valuable inlets, and there are a few on the shores of the great lakes. The great bay of San Francisco, in California, on the Pacific, is one of the finest basins in existence. The United States is furnished with some of the best harbours in the world.

CLIMATE.

The territory of the United States extends on the south almost to the torrid zone, and on the north reaches regions where frost lasts five or six months of the year, embracing almost every variety of climate. The mean temperature of Maine at one extremity is 42° , and of Cape Sable, at the southern point of Florida, 27° . The climate of the United States is exceedingly variable; and—with the exception

of the peninsula of Florida, where the proximity of the Atlantic on the east, and of the Gulf of Mexico on the south and west, produces a comparative uniformity—there are frequent transitions in temperature, to the extent of 30° in a few hours, in all seasons, and in all parts of the country. The summers are noted for their intense heat, the mercury rising sometimes as high as 100° Fah. This great heat, while equally intense, is not so continuous in the North as in the Southern States; and in the latter, the heat, though long continued, is not so oppressive as the thermometer would seem to indicate. The Atlantic States have a mean temperature about 10° more severe than the same latitude in western Europe; while, on the other hand, the climate of the Pacific coast is as mild as that of Italy. The North-Eastern States are subject to chill winds, especially in the spring months, and cold blasts from the ice-fields of British North America sweep over the Northern States upon every great rise in the temperature further South.

The seasons are also differently distributed. Philadelphia has the summer of Rome and the winter of Vienna. In Florida, Louisiana, and some parts of Georgia, snow is scarcely ever seen. In Pennsylvania, snow covers the ground for three months of the year, in Massachusetts it lies four, and in Maine five months. In the two latter States the ice bears loaded waggons, and the sea is sometimes frozen to a considerable distance from the coast. The climate in the basin of the Ohio river is the most equable, and possesses no very striking peculiarities.

There are local causes affecting the climate of particular districts which must always be taken into consideration. The lakes, for example, mitigate to some degree the temperature of the regions bordering on them, while the elevated table-lands of New Mexico, Utah, and Eastern

Oregon, are rendered cooler and airier than the same parallels elsewhere. The following table shows the average temperature of each of the four seasons of the year at various points on the Atlantic and Pacific coasts, and the interior:—

	Lat.	Spring.	Summer.	Autumn.	Winter.
Fortress Monroe, Norfolk, Va.	37°	56·87°	76·57°	61·68°	40·45°
Fort Columbus, New York ...	40 42'	48·74	72·10	54·55	31·38
Fort Sullivan, Eastport	44 15	40·15	60·50	47·52	23·90
St. Louis, Missouri.....	38 40	54·15	76·19	55·44	32·27
Chicago, Illinois.....	41 52	44·90	67·33	48·85	25·90
Fort Repley, Minnesota.....	46 19	39·33	64·94	42·91	10·1
San Francisco, California	37 48	54·41	57·33	56·83	50·86
Astoria, Oregon	46 11	51·16	61·58	53·76	42·43

The atmosphere of the United States, with the exception of some portions of the Pacific States, is remarkably clear. Objects can be seen at great distances. From Mount Washington the Atlantic Ocean and the shore of Maine are perfectly visible at a distance of sixty miles. Another remarkable peculiarity in the air is its dryness. Except in swampy districts, damp in any form is unknown, moisture being almost immediately absorbed.

On the Pacific coast the rains are periodical, occurring, as a rule, in the winter and spring months, and south of lat. 40° in autumn also. The sterile district between long. 100° and the Cascade range experiences very little rainfall, though violent showers often fall, particularly among the mountains. The annual rainfall is estimated at about 3 inches, in the inland basin of Utah 6, in the plain south of Columbia River 10, in the Rocky Mountains desert from 15 to 20 inches. In summer rain is rarely seen. There are heavy falls of snow in the vicinity of Lake Superior and the Northern districts, which does not melt till the spring. South of the Potomac, snow is rarely seen, and when there is a fall, it is but of short duration. A more regular fall takes place in the North Atlantic States.

ZOOLOGY.

The United States contain about one-fourth of the known species of quadrupeds. Some are common to both hemispheres, others are peculiar to the Western. Comparing individuals of the same species, some are perfectly similar; between others there is some difference in size, colour, and other particulars. In a few instances the animals of the Eastern hemisphere are larger than those of the Western, but the reverse is generally the case.

The animal kingdom comprises the buffalo, and the musk ox, the moose or American elk, the long-horned antelope, peculiar to North America; the Virginian deer, cougar, black and grisly bears, American fox, racoon, opossum, beaver, and glutton. The bear is of two species; the short-legged lives principally on vegetable food, and is not carnivorous; it dozes away the winter in a torpid state, sucking its paws, and expending the fat previously acquired. The ranging bear is a large and voracious beast, destroying calves, sheep, pigs, and sometimes children; in the winter it migrates southward. The wolf, like the bear, is found in all the States; it is a voracious animal, stealing into sheepfolds at night, attacking deer, hogs, and small cattle, and sometimes hunting in packs. The catamount is of the size of a large dog, and extremely ferocious, but it is rarely seen. The spotted tiger is scarcely seen, except in Louisiana; it is from five to six feet long. The cougar, or American panther, is about the same size, and more common; it destroys sheep, calves, and hogs, and, when hungry, will attack large cattle. The urchin differs in several respects from the European hedgehog. The lion, leopard, striped or true

tiger, hyena, elephant, rhinoceros, hippopotamus, and camelopard are unknown in America.

Among the birds are to be found the white-headed eagle, and several kinds of vultures. A great many of the minor species are indigenous to the Old World as well as the New ; the eagle, pheasant, grouse, partridge, swan, Canadian goose, and ptarmigan, are more or less numerous. In general, the small birds of America surpass those of Europe in the beauty of their plumage, but are much inferior to them in the melody of their notes.

Among the reptiles, the most remarkable is the alligator, or American crocodile, from 12 to 23 feet long, very strong and fierce. Of serpents, the rattlesnake, from four to six feet long, is the most formidable ; the siren is a native of the muddy pools of Georgia and Carolina.

Of fishes, the cod, mackerel, salmon, and shad, are the most plentiful, especially in shore ; and shellfish abound in the rivers of the Mississippi basin.

The domestic animals of the States are the same as those of Europe, the horse, ass, sheep, goat, and hog, having been naturalized ; rats and mice of the European species were also unknown in the New World till taken there by the early European settlers.

It is worthy of note that the native quadrupeds have diminished in size and ferocity before the advance of civilization. This is especially noticeable in the larger animals, which have retreated to the vast plains beyond the back settlements. This is the case with the bison or buffalo, though large numbers are still to be found in the boundless prairies of the West. An attempt is now being made to acclimate the Bactrian camel in Texas and California, so far with every promise of an ultimate success.

VEGETATION.

The forests of the Eastern section of the United States comprise 140 different kinds of trees, of which 80 are said to attain the height of 60 feet and upwards. Among them are numerous species of oak, ash, and pine, the hickory and tulip tree, American cypress and plane, several magnolias, walnuts, etc.

In the Northern regions are to be found the birch, American elm, red and white pine, numerous willows, sugar and other maples, and many herbaceous plants common to Northern Europe and Siberia, with few climbing or peculiar aquatic plants.

In the Middle regions, from lat. 44 to 35°, there are numerous oaks, hickory, and ash trees, white plane, white cedar, willows, sassafras, witch hazel, red maple, yellow birch, some climbing and herbaceous plants, and many fine flowering aquatics.

In the Southern regions, the cypress, Carolina poplar, *Magnolia grandiflora*, live oak, swamp hickory, and many climbing, herbaceous, and aquatic plants flourish to perfection. South of lat. 27° the character of the vegetation merges in that of the tropics.

The white pine sometimes attains a height of 200 feet, and the tulip tree, or poplar, one of the noblest in the American forests, is not unfrequently met with 120 or 130 feet high, with a diameter of from five to eight feet. The magnolia, when in flower, gives to the forests of the South the appearance of a gigantic flower garden. The white cedar emits a perfume similar to that obtained by mixing otto of roses and turpentine.

The forests of California and Oregon surpass those of every other region in the prodigious magnitude of their

trees. The red wood, a species of cypress, is sometimes found more than twenty feet in diameter, and of a proportionate height, and the pines of Oregon attain 300 feet in height, with diameter from eight to twenty feet.

The grasses indigenous to the United States are very numerous. Seventy-one genera and 261 species of native *gramineæ* have been enumerated.

Of fruit trees, the apple, pear, plum, and other hardy fruits, flourish in the North ; while in the South the more luscious pomegranates, melons, figs, grapes, olives, almonds, oranges, are to be found in abundance.

The number of flowering plants is large ; each region has its flora, and each its characteristic blossoms. In general it may be said that the native flora of the United States comprises few or none of the great staples of food. The cereals and all the esculent roots are naturalized ; but many of them have been greatly improved by their transfer. Cucumbers, melons, etc., are also all naturalized, as are most of the fruits, especially the apple, pear, plum, peach, quince, and apricot. The edible berries, such as the strawberry, blackberry, raspberry, whortleberry, bilberry, cloudberry, are indigenous. The great fibrous staples, cotton, flax, and hemp, are naturalized plants.

CHAPTER II.

AGRICULTURE, MANUFACTURES, COMMERCE.

AGRICULTURE.

THE vast and unparalleled resources of the United States are not as yet fully developed, though the rapid progress in industry and wealth made during the last few years, excite the most sanguine expectations of the future. In every department of industry, agriculture, manufactures, and commerce, the movement is equally rapid and sustained. Agriculture has ever been the chief pursuit, and agricultural products have always constituted the principal articles of export. The first exports of the early colonists were the natural products of the forest. Furs, timber, pitch and tar, pot and pearl ashes, with some cattle and provisions, constituted the chief articles of trade from the Northern provinces in the early part of the eighteenth century; rice and tobacco had even then become important items of exportation from the Southern colonies; and at a later period wheat became the great staple of the Middle and Western States, and cotton that of the more Southern sections of the country.

A large portion of the United States still remains un-

cultivated, mostly because it has not yet been occupied. Land is still so plentiful in proportion to the population and capital, that rent has scarcely begun to have any existence, the farmer being in almost every case proprietor of the land which he cultivates.

The science of farming has been so much extended and improved of late years, that it is gradually giving to the United States a rank as one of the most carefully tilled countries in the world. It appears from the returns of the last census, that the ratio of the increase of the principal agricultural products of the United States has more than kept pace with the increase of the population, and a marked improvement has taken place in the more important agricultural operations.

The spirit of inquiry and enterprise in agriculture was never more general or encouraging than at the present time. Societies have been established in all the States for the purpose of collecting and rendering as useful as possible all the information relative to agriculture, and in Massachusetts a department of the State Legislature has been organized for the superintendence of the agricultural interests of the State.

The Middle States, especially New York, have attained a high degree of improvement, consequent upon the efforts made to raise the standard of agriculture.

The Western States are more strictly agricultural than any other section, and Chicago and other towns owe their existence entirely to the mammoth trade in Indian corn, wheat, and other farm products supplied by the surrounding country.

The Southern States, while their main products are cotton, rice, tobacco, and sugar, also produce cereals in large quantities.

The farms in the States and Territories contain in the

aggregate 163,261,389 acres improved, and 246,508,244 acres unimproved lands. The unimproved land consists of that which is occupied and necessary to the enjoyment of the improved, though not itself reclaimed; it does not include meadow land. The average size of farms is 203 acres, the greatest average being in California (4466 acres), and the smallest in Utah (51 acres). The greatest average values of farms are in the District of Columbia, Louisiana, and New Jersey; and the smallest average values in Utah, New Mexico, and Arkansas.

The average value of land per acre in New England is \$20.27c.; in the Middle States, \$28.07c.; in the Southern States, \$5.34c.; in the South-Western States, \$6.26c.; in the North-Western States, \$11.39c.; in California and the organized Territories, \$1.89c.; in Texas, \$1.44c. The proportion of the improved land to the whole in the Free States is 14.72 per cent.; in the Slave States, 10.09 per cent.; in the United States, 7.71 per cent. The proportion of occupied land to the whole in the Free States is 28.56 per cent.; in the Slave States, 33.17 per cent.; in the United States, 20.02 per cent. The average value of occupied land per acre in the Free States is \$19; in the Slave States, \$6.09c.; in the United States, \$11.14c.

In general it may be said that the Middle and Western States are most productive in wheat, rye, and oats; the Southern and Western in Indian corn; and the Southern in cotton, sugar, tobacco, and rice. Wool and Irish potatoes are raised principally north of lat 34°; tobacco between 34° and 41°; barley, apples, and pears, north of 38°; hemp, flax, and hops, north of 34°; cotton between 31° and 36°; sugar south of 31°.

The quantity of wheat grown in 1859 amounted to 171,183,381 bushels. In many States the quantity grown has exceeded the means of ready transportation, or the

demands of the market. It is, however, to the extended cultivation of spring wheat in the North-Western States, that the increase—which has been at the rate of 70 per cent. in ten years—is due. The greatest wheat-producing State is Illinois; then come Wisconsin, Indiana, Ohio, Virginia, Pennsylvania, New York, Iowa, and Michigan. The prairie States yield the largest crops.

Maize, or Indian corn, furnishing at once food for man, food for beast, and manure for the land, is cultivated in every State and Territory of the Union, and is undoubtedly the popular crop, receiving the distinctive name of “corn.” It is less liable to failure than any other. In 1859, the crop was 830,541,707 bushels, showing an increase of 40 per cent. since 1849. A large quantity is shipped to Great Britain, and every year increases the demand.

Barley, oats, rye, buckwheat, and flax, are grown in every part of the United States—principally in New York. Hemp is chiefly raised in New York, Kentucky, and Missouri. The total product for 1860 being 83,000 tons of dew rotted hemp, and about 4000 tons water-rotted.

Cotton, the great staple of the Union, is chiefly a product of the South. It is the produce of the herbaceous or annual cotton plant, and is of two kinds—the Sea Island or long staple, and the upland or short staple. The former, which is of superior quality, is grown chiefly in the Carolinas and Georgia, on the Atlantic, and in some parts of the State of Texas. Cotton was first planted in the United States in or about 1787, and was first exported in small quantities in 1790. Since then its culture has become enormous, and the rapidity with which it has been developed is truly wonderful. In the beginning of the present century, the annual exportation was less than 5000 bales, in 1859 it had increased to 5,196,944 bales, of 400 pounds each. The whole crop is the product of thir-

teen States, but is chiefly obtained from eight of them. Immense as is the quantity produced, the demand is equal to the supply. The civil war has led to a temporary cessation of the trade, which, now that peace is restored, will doubtless speedily regain its activity. Prior to the production of cotton in such vast quantities in the more Southern States, it was extensively cultivated for domestic purposes in North Carolina, Virginia, Maryland, Delaware, and Southern Illinois; and it is not improbable that its cultivation may be re-established in some of these States, with profit to the producer and advantage to the consumer. The number of plantations in which upwards of five bales were produced was, in the year 1859, 74,031.

The dairy products of the United States are large. Considerable quantities are shipped yearly to Great Britain. The quantity of butter produced in the year 1859-60 was set down as 460,509,854 pounds; and the production of cheese reached 105,875,135 pounds.

Although large quantities of sugar and molasses are imported into the United States, the product of cane sugar in 1859 was 302,205 hogsheads; and of molasses 16,337,080 gallons—Louisiana being the State where the great bulk of American sugar is produced. A large quantity of sugar is obtained from several species of the maple tree, that yielding the richest juice being the rock or sugar maple. The manufacture is said to have originated in New England in 1752, and extended from thence into the North-Eastern States, where the tree principally abounds. It is found in beautiful groves, called sugar orchards; and in the months of February and March, when the days grow warm and the nights are frosty, the trees are bored with augers about two feet from the ground, and from the holes thus made the sap exudes, and is collected in wooden troughs, and boiled on the spot. The

quantity of maple sugar made in 1859 was 302,205 hogsheads.

Sorghum, a species of grass, commonly known as Indian millet, produces a saccharine juice, which in 1856 began to attract attention. In 1859, less than four years from its introduction, the plant had become a most important agricultural staple. It thrives wherever Indian corn will grow. It may be cultivated in the same manner. When fully grown, it is from 6 to 18 feet high; the stalks of 1 to 2 inches diameter. The stalks yield on an average about 50 per cent. of their weight in juice, or, to the acre, from 150 to 400 gallons, and about 12 per cent. of sugar. Excellent rum is made from the seeds.

In the production of tobacco, every State and Territory has a share, the principal coming from Virginia, Kentucky, and Maryland, where it has been the staple since their first settlement; and it is also extensively grown in Kentucky, Ohio, Missouri, and other States. Besides the quantities required for domestic use, large amounts are exported. Several of the Northern States are showing a considerable increase in the growth of this staple. In 1859, the total produce was 429,390,771 pounds. There are upwards of 15,745 plantations on which 3000 pounds or more are raised.

The hay crop of 1859 was 19,129,128 tons. This crop is mainly confined to the Northern States. In the Southern States, the weather is so mild as to allow cattle to graze during the greater portion of the year, rendering a hay harvest less necessary. The estimated value of the above crop is upwards of \$150,000,000.

Rice was first cultivated in South Carolina in 1694, and four years afterwards, 60 tons were shipped to England. Since that time, it has been so successfully cultivated, that in 1860 it reached 190 millions of pounds.

South Carolina and Georgia are the principal producers out of the sixteen States in which it is grown. A large amount is exported.

Hops are principally cultivated in New York, though every State and Territory, with the exception of Florida, New Mexico, and Dacotah, contributed to the crop of 1860, which amounted to upwards of 10 millions of pounds.

Potatoes are raised in every part of the Union, the Irish potato principally in the Northern, and the sweet potato chiefly in the Southern section. The yield for 1860 was upwards of 110 millions of bushels of the former, and 35 millions of the former.

The last returns upon the subject of wine making show a large increase in an article which promises to become one of great commercial value. The wine culture has increased in a number of States, but more particularly in Ohio, California, and Kentucky. These three States made nearly one million of the 1,860,008 gallons reported in 1860.

The orchard products of the United States consist principally of apples and pears, of which the value in 1860 was nearly 20 millions of dollars, showing an increase in ten years of about 12 millions of dollars; an increase owing to the great attention which has been paid to the introduction and cultivation of improved varieties of fruit, and the processes of preservation by artificial means, which now employ a large amount of capital.

The number of acres devoted to the different crops in 1860 were—hay and pasturage, 33,000,000; Indian corn, 31,000,000; wheat, 11,000,000; oats, 7,500,000; cotton, 5,000,000; rye, 1,200,000; peas and beans, 1,000,000; Irish potatoes, 1,000,000; sweet potatoes, 750,000; buckwheat, 600,000; tobacco, 400,000; sugar, 400,000; barley, 300,000; rice, 175,000; hemp, 110,000; flax, 100,000;

orchards, 500,000 ; gardens, 500,000 ; vineyards, 250,000 ; miscellaneous, 1,000,000.

The largest average crop per acre of wheat, was in Massachusetts, 16 bushels ; the smallest, in Georgia, 5 bushels. Of rye, largest, Ohio, 25 bushels ; smallest, Virginia, 5 bushels. Of Indian corn, largest, Connecticut, 40 bushels ; smallest, South Carolina, 11 bushels. Of oats, largest, Iowa, 36 bushels ; smallest, North Carolina, 10 bushels. Of rice, Florida, 1850lbs., South Carolina, 1750lbs., Louisiana, 1400lbs. Of tobacco, largest, Missouri, 775lbs. ; of seed cotton, largest, Texas, 750lbs. ; of Irish potatoes, largest, Texas, 250 bushels ; smallest, Alabama, 60 bushels ; of sweet potatoes, largest, Georgia, 400 bushels.

The value of the live stock and domestic animals forms an important item in the statistics of the country. A most satisfactory increase in the number and varieties is shown by the last returns. The total value of the live stock was, in 1860, \$1,107,490,216. The horses numbered 6,115,458 ; asses and mules, 1,129,553 ; working oxen, 2,240,075 ; milch cows, 8,728,862 ; other cattle, 14,671,400 ; swine, 32,555,367. The number of sheep returned in the last census of 1860 was 23,317,756, and the amount of wool 60,511,343lbs. In addition to the number of sheep just given, it was reported that about 1,505,810 were not included in the returns, being owned by other than farmers. The total increase of sheep in ten years was 1,594,536.

MANUFACTURES.

The manufacturing industry of the United States dates from a period prior to their existence as an independent

nation. Until the English Government forbade the sale of their manufactured products abroad, from the fear of its competition with her home industries, products of the lever, the forge, and the anvil, were among the exports of the New England colonies. The United States cannot as yet compete with the more fully populated countries of Western Europe; but their advance in this respect is steady, and has of late years been wonderfully rapid. The essential materials required for the development of manufacturing industry are coal and iron, and these are in exhaustless abundance. The unceasing energy that is displayed in every department of industry bids fair to place them ere long in the first rank of manufacturing nations.

Mr. Kennedy, in his preliminary report of the United States census of 1860, says:—"The returns of manufactures exhibit a most gratifying increase, and present at the same time an imposing view of the magnitude to which this branch of the national industry has attained within the last ten years. The total value of domestic manufactures (including fisheries and the products of the mines) for the year ending June 1, 1860, reached an aggregate value of \$1,900,000,000 (£380,000,000). This result exhibits an increase of more than 86 per cent. in ten years. The growth of this branch of American labour appears, therefore, to have been in much greater ratio than that of the population. Its increase has been 123 per cent. greater than that even of the white population, by which it was principally produced."

The chief manufacturing sections are the New England, or Eastern States, and the Middle States. The most celebrated products are heavy cotton and woollen goods, iron-ware, machinery, boots, shoes, and agricultural tools. In the extent of the cotton and iron manufactures this country surpasses all others except England. Pennsylvania

and New York surpass any of the other States in the Union in the number of their manufacturing establishments; Ohio and Massachusetts come next in order.

The manufacture of iron is superior to any other in amount, and is pursued to a great extent nearly throughout the Union. In Pennsylvania, New York, Ohio, Massachusetts, and New Jersey, it forms one of the most valuable and characteristic branches of industry and in Pennsylvania nearly one-tenth of the population derive their subsistence from it.

The manufacture of iron was conducted on a large scale for many years before the revolution. The necessity of iron for so many uses stimulated its manufacture after the colonies became independent; and though it was largely imported from Europe, the combination of skill and capital, and the known existence of superior ores, caused a healthy growth in the production.

The quantity of pig iron returned by the census table of 1860 was 884,474 tons of bar, and other rolled iron 406,298 tons, the aggregate value of which was nearly \$42,000,000 (£8,500,000). Of this amount, Pennsylvania contributed over \$34,000,000 (£6,800,000).

A large portion of the capital of the United States is invested in the manufacture of machinery and implements, of which a quantity are exported to foreign countries. The agricultural implements manufactured in 1860 were of the value of over \$17,000,000. This branch of industry has increased in a most extraordinary manner during the last ten years, especially in the Western States. The value of implements produced there was \$7,955,545 (£1,591,109), against barely \$2,000,000 (£400,000) in 1859. The States of Ohio and Illinois are the largest manufacturers in the West. New England shows an increase of about 65 per cent. In the Southern States the manufacture has increased

101 per cent., the largest increase being in Virginia, Alabama, and Louisiana. The total production of the country since 1859 has been increased 160 per cent.; the greatest increase being manifested in Michigan, Indiana, and Wisconsin, which is 1250, 386, and 201 per cent. respectively.

The construction of machinery for the purposes of the engineer and manufacturer has become a most important branch of industry. Nearly every section of the country, particularly the Atlantic slope, possesses a great affluence of water-power, to appropriate and adopt which to manufacturing purposes has given a great impetus to the construction of hydraulic machinery. The demand for rapid locomotion, and for the various kinds of machinery used in mills, mines, factories, etc., as well as for building and engineering, has caused the most rapid growth of this branch of industry. Perhaps nothing shows more the progress of a country in all operative branches than the increase in the statistics of this department. The annual product of the machinists' and millwrights' department in 1850 was valued at about \$28,000,000 (£5,600,000); in 1860 this reached upwards of \$47,000,000 (£9,400,000)—an increase of over \$19,000,000 (or nearly £4,000,000) in ten years. This is exclusive of sewing machines. The Middle States were the largest producers, having made 48 per cent. of the whole; but the Southern and Western States show the largest increase. New York and Pennsylvania take the lead, followed by Massachusetts, Ohio, and New Jersey. Iowa shows the greatest increase, being 29.11 per cent.; Maine shows the smallest, being only 5.

Besides the machinery and castings included in the above, the value of the production of the iron foundries must be taken. This in 1860 was \$27,970,193 (£5,554,038), being an increase on 1850 of 42 per cent. New York and

Pennsylvania show an increase of 39 and 60 per cent. respectively. The extensive stove foundries in the former State augmenting most materially the value of its production, which amounted to \$8,216,124 (£1,643,224).

“The sewing machine has been improved and introduced, in the last ten years, to an extent which has made it altogether a revolutionary instrument. It has opened avenues to profitable and healthful industry for thousands of industrious females, to whom the labours of the needle had become wholly unremunerative and injurious in their effects. Like all automatic powers, it has enhanced the comforts of every class, by cheapening the process of manufacture of numerous articles of prime necessity, without permanently subtracting from the average means of support of any portion of the community. It has added a positive increment to the permanent wealth of the country, by creating larger and more varied applications of capital and skill in the several branches of which it is auxiliary. The manufacture of the machine has itself become one of considerable magnitude, and has received a remarkable impulse since 1850. The returns show an aggregate of 116,330 machines made in nine States in 1860, the value of which was \$5,605,305 (£1,121,109). During the year 1861 sewing machines to the value of over \$61,000 were exported to foreign countries. It is already employed in a great variety of operations, and upon different materials, and is rapidly becoming an indispensable and general appendage to the household.”

The cotton manufacture was commenced as early as 1790, although there had been some home manufacture of cotton goods prior to that time. The progress of the manufacture had, however, been impeded by the large quantities of English cotton goods imported annually from Great Britain, where the invention of the power-loom had

cheapened the cost of production. In 1822, the first cotton mill was erected at Lowell.

The States most extensively engaged in the cotton manufacture are, Massachusetts, Pennsylvania, Rhode Island, Connecticut, and New York; and this manufacture is carried on in all the States of the Union excepting seven. It is chiefly the coarser description of fabrics that are produced.

The total value of the cotton goods for 1860 was \$115,237,926 (£23,047,585), of which, New England contributed \$80,301,535 (£16,060,370), and the Middle States \$26,272,111 (£5,254,422). In the States of Maine and New Jersey, the increase during the last ten years has been 152 per cent.

In 1860, the number of hands employed was 45,315 males, and 73,605 females; and the average product of the labour of each was \$969. The number of spindles returned was 5,035,798. The average product per spindle in the whole Union is \$2286, in New England \$2030, in the Middle States, \$3040.

The quantity of cotton used was 364,036,123lbs. or 910,090 bales of 400lbs. each. Massachusetts, which stands at the head of the cotton-manufacturing States, had, in 1860, 200 factories, with 1,739,700 spindles, and 44,978 looms; \$33,300,000 (£6,660,000) of capital invested in the trade; employed 22,353 female, and 12,635 male hands, whose labour cost \$7,221,156 (£1,444,231). In 1860, 915 manufactories were in operation, of these 192 were in the Southern and Western States. The increase in ten years is about 76 per cent.; however, the dearth, high price of cotton, and the general depression of business consequent upon the civil war, have since that date diminished for a time the amount of production.

The woollen manufacture was carried on as a branch

of home industry almost from the foundation of the colonies, but was not carried on in large establishments to any considerable extent till after 1810. In 1850, the manufacturers of broadcloths learned the art of dyeing them with fast colours, and this part of the manufacture received a very considerable impulse. The power carpet-loom had also been invented, and the manufacturers were able to make carpets equal in quality and in durability to the English. In 1860, the number of establishments had been reduced by amalgamation, being 638 less than in 1850; but the amount of capital invested in the business had risen to \$35,520,527. Twenty-five out of the thirty-one States have woollen manufactories, Massachusetts again ranking first in order of importance, New York taking the second place, and Connecticut the third. The largest amount is made in New England, of which more than one half comes from Massachusetts, which has 131 factories of large size. Pennsylvania comes next, and though it has more establishments, yet scarcely produces half as much. New York ranks third. Kentucky takes the lead among the Western States, displacing Ohio, in which the woollen trade had decreased since 1850.

The manufacture of leather was commenced very soon after the settlement of the colonies, being one of the class of manufactures well adapted to new settlements, and its advancement has been steadily increasing to the present time. The large tanneries have usually been situated in districts where the hemlock and oak abounded, for obtaining the bark used in tanning without too much expense of transportation. In 1860, the production of leather is stated at \$63,091,051 (£12,619,210). The largest producers are New York, Pennsylvania, and Massachusetts. Including morocco and patent leather, the aggregate value in 1860 exceeded \$67,000,000 (£13,200,000).

In the manufacture of boots and shoes, a larger number of hands are employed than in any other single branch of industry in the United States. The total number of establishments was returned as 11,864; the capital invested over \$24,000,000 (£4,800,000); number of hands employed, 96,287 male, and 31,140 female; and the value of the whole manufacture was \$89,549,900 (£17,909,980). The largest production of any one State was that of Massachusetts, \$46,440,209 (£9,288,041); New York ranking next, \$10,878,797 (£2,175,759). The largest production of a single establishment was one in North Brookfield, Massachusetts, and amounted to \$750,000 (£150,000).

The most important manufacture, flour, has increased enormously during the last ten years, the value of which increase is estimated to be nearly \$90,000,000. The value of the total manufacture in 1860 was \$223,144,369 (£44,628,873); of this amount the export for the year was \$15,448,507 (£3,089,701). The increase in the last ten years has been 64 per cent. The largest mill in the Union is in Oswego, New York, which in 1860 produced 300,000 barrels of flour; two in Richmond, Virginia, made 190,000 and 160,000 respectively; and another in New York city returned 146,000 barrels. The value of the production of each of these three mills ranged from \$1,000,000 to \$1,500,000 (£200,000 to £300,000) annually.

The Western States take the lead in this manufacture; the Middle, Southern, New England, and Pacific States following in order. The latter show an increase on the value of the manufacture in 1850 of 222 per cent.

The influence of improved machinery is conspicuously exhibited in the manufacture of sawed and planed timber, in which the United States stand altogether unrivalled, as

well for the extent and perfection of the mechanism employed, as the amount of the product. This reached, in 1860, the value of \$95,912,286 (£19,182,457), an increase of 64 per cent. in the last decade; New York and Pennsylvania contributing the largest share of this amount.

In the manufacture of spirituous liquors the Middle and Western States have the largest share. The total number of distilleries are put down at 1138, besides a large number of rectifying establishments. The product of the former was over 88,000,000 of gallons, of the value of \$24,253,176 (£4,850,635).

Malt liquors employed 969 breweries in 1860, more than double as many than in 1850; and the total of all kinds of beer was 3,235,545 barrels, of the value of \$17,977,135 (£3,595,427). Among the Eastern States, Massachusetts, and among the Western, Ohio, Illinois, and Missouri, were the largest producers.

The making and refining of salt in the United States in 1850 employed 340 establishments, and the value of their production was \$2,177,945. The four States of New York, Virginia, Ohio, and Pennsylvania, which, in the order named, are the principal salt-producing States, made, according to the returns of 1860, nearly 12,000,000 bushels, the value of which, at 18½ cents per bushel, was £440,000, or \$2,200,000. Texas, Kentucky, Massachusetts, and California, are also salt-producing States. About 60 per cent. of the whole was made in New York.

FISHERIES.

The fisheries of the United States, being encouraged by liberal bounties from the Government, have become greater than those of any other nation. They are extensively prosecuted in distant seas, and along the neighbouring shores of the British provinces, as well as upon its own coasts. It is, however, to be regretted that the non-renewal by the American Government of the Reciprocity Treaty of 1854, has materially curtailed the area of the fishing-grounds.

The most important fisheries, ranked according to the value of their yearly returns, are the whale, cod, mackerel, herring, and oyster fisheries.

The total value of the lake, river, shore, and deep sea fisheries, amounted in 1860 to \$12,924,092 (£2,584,818). This amount includes oysters to the value of \$382,170 (£76,434), and the product of the whale fisheries \$7,521,588 (£1,504,317); of this latter, \$6,526,238 (£1,305,247) belongs to Massachusetts. The total value of the product of this State was \$9,300,442 (£1,860,088), thus contributing nearly 72 per cent. of the whole production of the United States fisheries, and taking the lead in this most important branch of maritime trade.

Maine holds the second place, returning \$1,050,755 (£210,151) as the value of the cod, mackerel, herring, etc., taken by its fishermen.

Michigan returned the largest value in white fish \$250,467 (£50,093); New Jersey, New York, and Virginia, contributed the greatest amount of oysters.

A decline in the whale fishery has taken place, owing to a scarcity of the fish in its former haunts; a slight decline has also taken place in the value of the cod fisheries.

The returns of salmon fishing are from three States only, California, Oregon, and Washington, the total value being \$51,300 (£10,260). The rivers in the Pacific States abound with this fish, which is of the finest quality. Pickerel to the amount of about \$85,000 (£17,000) are yearly taken from the rivers which flow into Lakes Erie, Huron, Michigan, and Superior.

The shad fisheries are most valuable. This fish is principally taken from the rivers falling into the Atlantic, as the Connecticut, Hudson, Delaware, and Potomac. North Carolina has the largest fishery, and is followed by Florida and New Hampshire. The total value of this fish for 1860 was returned as \$321,052 (£64,210).

The value of sea products, such as fish oil, spermaceti, fish dried and pickled, exported in the year 1860, was over \$4,000,000 (£800,000).

COMMERCE.

“The commerce of the United States attained considerable power at an early period. In 1700, the exports of New England, New York, Pennsylvania, Virginia, Maryland, and Carolina, amounted to about £395,000, and their imports to £344,000. In July 1807, American commerce received a blow from which it did not recover for years. ‘The orders in council’ of the British parliament, followed as they were by the ‘Berlin and Milan decrees’ of Napoleon, and by our own embargo act in 1807, produced a terrible stagnation. From that period to 1830, except the year 1818, the average of imports did not exceed \$78,000,000 (£15,600,000), and the exports were of about the same amount. From 1831 to 1837 the imports and

exports rapidly increased. The revulsion of 1837, and the combined results of the bankrupt law, the change in the tariff, and the secondary effects of the great financial panic, reduced both imports and exports, which touched their lowest point in 1842. From that date, the increase was gradual at first, but more rapid in the later years, up to 1860, when the exports were \$400,122,296 (£80,024,459), and the imports \$362,163,941 (£72,432,788). In 1854, a treaty was entered into between the United States and Great Britain for the reciprocal admission, free of duty, into the former, and the provinces of Canada, New Brunswick, Nova Scotia, Prince Edward's Isle, and Newfoundland, of certain specified articles, being the chief productions of those countries; the treaty to continue in force ten years, and then until twelve months after notice given by either party of a desire to abrogate it. All which has much augmented the commerce of the provinces, and opened greater facilities for bringing Western produce to market.

A vast inland trade is carried on, over an unequalled extent of artificial natural lines of communication. The domestic commerce of the United States may be divided into three branches. 1. That which is carried on coast-wise, up the bays and large rivers, and on the great lakes, by schooners, sloops, and steamboats. 2. That which is carried on chiefly in steamboats, but partly in rude flat-bottomed boats, on the affluents of the Mississippi. The natural centre of this trade is New Orleans, which, situated at the outlet of the valley, is necessarily the great entrepôt of all the produce destined for exportation, and of all the foreign articles required to supply the wants of the people of the Western States. 3. The overland trade, between the Western and Atlantic States, which consists principally of horses, hogs, cattle, and mules, driven every

year to the Atlantic States, to the value of many millions of dollars ; but the difficulty of conveyance long prevented any other return than money. The many canals and railways now constructed, however, transport returned merchandise, as well as travellers, across the mountains. The four maritime States of New England are those most devoted to navigation and trade ; Massachusetts, though it contains less than one twenty-fifth of the population of the United States, owns more than one-fourth of the shipping tonnage.

In commercial affairs, the country now undoubtedly enjoys great advantages : the extent of the coast, the energy of the people, and, above all, the unrestrained liberty enjoyed in this, as in all other departments of life by the Americans, have tended to such a result. The commerce of the United States has obtained a surprising magnitude, and is second only to that of Great Britain. There is no part of the globe which is not visited by the American merchantmen.

The imports of the United States consist principally of manufactured goods, chiefly of the finer kinds, a large proportion being supplied by Great Britain ; with sugar, molasses, coffee, and other tropical produce, besides tea, hides, wines, spirits, dried fruits, and a great variety of minor articles, including watches, books, prints, etc.

The exports are principally raw produce, and embrace cotton, flour, maize, tobacco, rice, sawn and planed timber of every kind, beef, pork, dried fish, whale and other fish-oil, tar, pitch, turpentine, horses and cattle skins, furs, and bullion (chiefly gold), besides a few manufactured commodities. Of these items, cotton is by far the largest in amount, and forms nearly a third part of their total value.

The various articles of export may be arranged under four heads :—1, produce of agriculture, which constitutes

more than three-fourths of the entire value; 2, the forest produce, amounting to about a twentieth part; 3, the fisheries, representing about a forty-eighth part of the whole; and, 4, the different manufactures, which make up the remaining portion, that is, about a tenth part of the total amount.

The following statement shows, in approximate round numbers, the mean annual value for the last ten years prior to July, 1860, of the leading exports of domestic produce, and of the principal imports of foreign produce for domestic consumption, with the corresponding totals of all the exports and imports of a like character:—

DOMESTIC EXPORTS.

	YEARLY VALUE.
Cotton	\$124,000,000
Breadstuffs and provisions	50,000,000
Manufactures	43,000,000
Gold and silver (in coin and bullion)	42,000,000
Tobacco (not including manufactured tobacco)...	15,000,000
Timber, etc.	5,000,000

FOREIGN IMPORTS FOR DOMESTIC CONSUMPTION.

	YEARLY VALUE.
Woollen goods	\$28,000,000
Silk "	27,000,000
Cotton "	22,000,000
Sugar	21,000,000
Iron and manufactures of iron	20,000,000
Coffee	19,000,000
Linen and linen fabrics	10,000,000
Tea	7,000,000

Total foreign imports of all kinds, appropriated for domestic consumption \$268,000,000

Owing to the bulky nature of most of the exports, an immense number of vessels is required for their transpor-

tation; hence the mercantile marine of the United States, previous to the late war, was the largest in the world.

The State of Maine takes the lead in ship-building; New York is second; Massachusetts third; Pennsylvania fourth; and Connecticut fifth.

The number of ships and barques built in the six years ending

1860 was.....	1,259
Number of brigs	397
„ schooners	2,803
„ sloops and canal boats...	2,480
„ steamers.....	1,389
Total tonnage of the above.....	2,043,427
Total tonnage of the United States	
in 1850	3,772,439
Total tonnage of the United States	
in 1860	7,361,639
Estimated value of this tonnage.....	\$221,592,480 (£44,318,496)

MINING.

In the several branches of this department a large amount of capital and labour is employed. The development of the many valuable mines—forming, as they do, the repository and fountain-head of crude materials for immense and varied industry in the metallurgic and chemical arts, has become a leading occupation.

The great metalliferous region is found between the

Missouri River and the Pacific Ocean, embracing a little more than half the breadth of the United States. The Hon. W. M. Stewart, in a speech recently delivered, thus pictures the mining resources of the Pacific region:—
“When the light of science, invigorated by the inventive genius of Americans, shall have spread its rays, it will reveal to the world the El Dorado of Columbus and his followers. Enough is already known to establish the fact that this is a vast mineral region, surpassing in richness all other discoveries hitherto made. Here is a field for three millions of miners; here are homes for twenty millions of people; here are resources poured into the lap of the industry of the East, augmenting and accumulating strength and importance by the exhaustless varieties of the products of the country. The Sierra and Rocky Mountains have been traversed and partially explored; a country more extensive in territory than all the States east of the Mississippi has been proved rich in gold, silver, quicksilver, copper, lead, iron, salt, sulphur, saleratus, and nearly every other mineral that can contribute to the wealth of civilized man.”

“The gold-bearing region of the United States,” says Mr. Chase, in his Treasury Report for 1862, “stretches through near eighteen degrees of latitude, from British Columbia on the north, to Mexico on the south; and through more than twenty degrees of longitude, from the eastern declination of the Rocky Mountains, to the Pacific Ocean. It includes four States—California, Oregon, Nevada, and Colorado; six Territories—Utah, New Mexico, Dacotah, Idaho, Montano, and Arizona; and forms an area of more than a million of square miles; the whole of which, with comparatively unimportant exceptions, is the property of the nation.”

The yield of the precious metals in this region alone

will probably be over \$100,000,000 a year, increasing with the influx of population for many years to come. While gold has been found in paying quantities all along the Rocky chain, its deposits are not confined to this locality, but sweep across the country eastward some hundreds of miles, to the Big Horn Mountains. The gold discoveries there cover a large area of the country.

The silver-fields lately discovered and opened in Colorado and Nevada, upon the western slope of the Rocky Mountains—which are asserted to be the legitimate localities for true gold and silver bearing ores—are apparently in prominence and value beyond any known in the world, and the results that will be realized within the next few years, will constitute an epoch in the history of silver mining.

The Hon. J. P. Usher, Secretary of the Interior, says of these recent discoveries: "A vast belt of some one or two hundred miles in width, and eight or nine hundred in length, embracing portions of Idaho, Nevada, and Arizona, is rich in silver ore; and it is estimated by persons familiar with the subject, that, if the mines now opened there were supplied with the proper machinery, they would yield \$10,000,000 per month. In the same region vast beds of salt have also been found, which, from its value in the process of separating the silver in the ores, has given a fresh impulse to mining. When we reflect that the richest veins of ore heretofore discovered are as yet but slightly developed, whilst new discoveries are constantly made, it will be perceived that the annual product of the mines in the United States must soon reach a magnitude without precedent in the history of mining operations."

The enormous production of the mines of the Pacific

coast for the last fourteen years, has indeed been most surprising. From 1849 to 1862 the sum of \$750,000,000 (£150,000,000) in coin and bullion, was shipped from the United States to foreign countries—chiefly to England, nearly all of which has been the product of this coast. The progressive development of this vast mineral region must soon build up a great empire on the Pacific. The weekly receipts of bullion from the mines in Nevada is already reckoned by the ton. The Comstock Lode, the most valuable mine of silver that has yet been struck, almost justifies the supposition that it is limitless in its wealth, and “no description of it,” says Mr. Greeley, “can give any adequate idea of its wonderful wealth of silver.” The Washoe Valley and the Reese Valley are the principal mining districts.

Ores are now sent from California and Nevada to Swansea, in Wales, to be smelted. 25 per cent. more silver is extracted from these ores at Swansea than would have been extracted in America; a quantity of rich silver ore, sent from one of the Nevada districts was found to contain a sufficient quantity of other valuable metals to defray the whole expenses, including carriage from the mines.

Lead ore is found in Missouri, Wisconsin, Iowa, Illinois, Virginia, and New York. The order in which the States are mentioned represents the order of their productiveness. The value of the total amount in 1860 was \$977,281 (£195,456). The lead region of Missouri is computed to extend over an area of six thousand square miles; the mines which have been worked for more than fifty years show no signs of exhaustion. The lead mines of Iowa are perhaps the most productive in the world, but at present they are not worked to their full extent.

Copper ore to the amount of 14,432 tons was obtained

in the year 1860; eight States contributed, Michigan taking the lead with 6283 tons; the total value was \$3,316,516 (£663,303). In Minnesota there is a considerable quantity of copper in the mineral belt stretching along the northern shore of Lake Superior.

The quicksilver mines of California are an important branch of the mining interest, though the gold excitement is the cause of their hardly receiving a passing notice. They are, however, most profitably and permanently worked. It is found on the coast range of mountains, extending from the Mendocino County to the Colorado River.

Deposits of iron ore, affording abundant supplies of metal, are found in nearly every State. But owing to the cheapness of foreign iron—which is largely imported—they are not extensively mined, except in a few States. The aggregate yield, however, is greater than in any other country except England.

About 2,500,000 tons of iron ore were mined in 1860, of which 1,706,476 tons were obtained in Pennsylvania. Ohio and New York were the next principal contributors: the former of 228,794 tons, the latter of 176,375 tons. In Missouri, there is an inexhaustible supply of this metal, of which upwards of 13,000,000 tons are estimated to be above the surface. Iron Mountain, which is 228 feet high, and covers at its base an area of 1,655,280,000 cubic feet, is computed to contain about 250,000,000 tons of iron ore. Pilot Knob, in the same State, is a solid mass of iron, covering an area of 360 acres.

Of the other metals, nickel and zinc are mined in Pennsylvania alone; the quantity obtained in 1860 being 2348 tons, value \$28,176 (£5,635), of the one, and 11,800 tons, value \$72,600 (£14,520), of the other.

“All reports, all facts,” says a recent writer, “go to sustain the broadest and fullest meaning of the state-

ment of President Lincoln, that the United States hold the treasury of the world; and to establish beyond reasonable doubt, that the countries of and adjacent to the Rocky Mountains are freighted with the most precious of ores—gold first, next silver, then copper, and also lead, iron, and coal; on the plains at the foot of the mountains, coal and iron are already found in abundant quantities, and are being mined and put to practical use; found, too, just where they are most needed, to take the place of the wood now fast being drained from the mountains, and furnish the material for the machinery necessary to work the ore, and make available the finer metals.”

Among the non-metallic mineral products of the United States, coal is most important; and the unequalled wealth and rapid development of the coal-fields are most striking. Anthracite coal is obtained in great abundance from extensive deposits between the Blue Ridge and neighbouring Alleghanies; bituminous coal, from vast beds in the Mississippi Valley. The whole amount procured in the country is exceeded only by that obtained in Great Britain.

The coal-fields in the eastern part of the United States are estimated to cover an area of not less than 225,000 square miles, nearly equal to the whole of the Western States north of the Ohio River, and east of the Mississippi. The principal of these, known as the Appalachian coal-field, extends along the western border of the Appalachian Highlands, from New York to Alabama, covering nearly 100,000 square miles. Another, more than half as large, occupies south-western Indiana and most of Illinois; another, of great extent, occurs in Missouri and Iowa; and another, of several thousand square miles, in Michigan.

The product of anthracite coal in the year ending June 1, 1860, was 9,397,332 tons, contributed—with the exception

of 1000 tons by Rhode Island—by Pennsylvania alone. Bituminous coal was obtained in fourteen States, to the amount of 5,775,077 tons, of which Pennsylvania contributed the largest share, being at the rate of 46·4 per cent.; Ohio, Illinois, Maryland, come next in order. The aggregate amount of all the coal mined in the United States in the same year was 15,173,409 tons, of the value of \$19,365,765 (£3,873,153). The value in 1850 was \$7,173,750 (£1,434,750).

PETROLEUM.

The discovery of the oil-springs in Pennsylvania has led to the development of one of the most important natural resources of the country, as well as a most valuable addition to its exports. This oil is called petroleum, or *rock oil*; from *petra*, a rock, and *oleum*, oil.

The presence of petroleum in large quantities is not limited to the United States. The ancients seem to have discovered springs of flowing bitumen, which is identical with modern petroleum. One spring mentioned by Herodotus as being situated in the Ionian Islands still flows, although it must have been in existence more than two thousand years. It is also found in Canada, Mexico, Northern Italy, on the shores of the Caspian Sea; in France, Germany, India, and other localities.

As early as the middle of the last century, this production was brought to the notice of the white population by

the Seneca Indians, who found it upon Oil Creek, a branch of the Alleghany, where a perennial flow of oil has been known to exist for upwards of a century; and there is no doubt but that petroleum formed an article of traffic between the Indians and French traders while they held the valley of the Mississippi. In 1845, the first important spring was struck at Tarentum, thirty-five miles above Pittsburg, on the Alleghany. In 1857, operations were commenced at Titusville, and in 1859 a fountain was reached by boring, at the depth of seventy-one feet, which yielded 400 gallons daily.

The springs are found principally in the bituminous coal areas of the United States, which extend upwards of 62,000 square miles, in eight of the Middle, Southern, and Western States. In the oil regions of Kentucky, Ohio, and West Virginia, the oil is found in the Carboniferous group; in Pennsylvania, in the Devonian. The fact, however, that the deposits of petroleum are not confined to any particular system of rocks, seems to complicate its origin, and make it most difficult of explanation. Several theories have been started to account for it; the most, however, that is known upon the subject, is, that the oil is of an organic nature; that it is found not only near bituminous shales and coal, but also that it issues from all the stratified rocks, from volcanic and metamorphic formations, from beds of lignite, and, in occasional instances, from a source of which nothing can be discovered. It is supposed that the processes of producing petroleum are going on beneath the level Western prairies, and that the oil thus formed penetrates the planes of stratification, and is diffused through the various layers of rock, and brought by running water to the surface. But the evenness of the surface indicates that the layers of the rocks beneath are undisturbed.

The phenomena attending its appearance are nearly always the same. In almost all cases its existence is accompanied by the presence of salt springs, and of jets of carburetted hydrogen gas. The fissures of the oil-bearing rocks seems filled with this gas, which is always indicative of oil. The oil comes to the surface in springs, or spreads its prismatic beauty across running streams, and may be brought by underground currents of water from great distances.

The oil does not run with certainty, nor can it be correctly estimated as to what an oil well will produce, or how long it will last. In some cases the oil will run for several hours and then stop, and will then commence again with greater force than before. Some flow at regular intervals of three, four, or twelve hours, others flow only at night. Some pour forth immense quantities of salt brine alternately with oil, others for hours only evolve a dangerous and highly inflammable vapour. The wells are affected to a large extent by the external atmosphere, a change of the weather being as distinctly indicated by the rise of the oil as by the rise of the mercury in a barometer. The correspondent of the *Times*, writing of this fact, observes that "the generally received idea of the temperature of the earth increasing in certain ratio with the depth, is not supported by the experience of petroleum, inasmuch as the oil brought up from the greatest depths has a lower temperature than that obtained nearer the surface."

Oil has been discovered in over three hundred localities outside of the oil regions of Pennsylvania, New York, Ohio, and West Virginia. Among other portions of the country in which oil indications are found may be mentioned California, Kentucky, Missouri, Illinois, Michigan, and Iowa. On the Des Moines River a great excitement has lately arisen,

and all the bottom land lying adjacent to a stream emptying into the Des Moines, called Spring Creek, has been bought up by oil speculators. The surface indications are said to be plentiful, the character of the country broken, and the surrounding bluffs filled with coal. Land which was previously held at only thirty dollars an acre, has since sold readily at prices varying from one hundred to three hundred dollars per acre.

In the valley of Oil Creek, Pennsylvania, there are fifteen farms, the area of which is little over 15,000 acres. The number of wells on these farms is about 500, of which nearly 200 are producing wells, with an average daily yield of about 4000 barrels. Before the oil excitement began, this property was almost valueless; in fact, through the entire valley of Oil Creek, would not average five dollars per acre, and large fortunes have been realized by the original owners, and still larger ones by those who have purchased the land.

The total exports of petroleum in 1862, 1863, 1864, and 1865, were as follows:—

1862.....	10,887,701 gallons.
1863.....	28,250,721 „
1864.....	31,792,972 „
1865.....	42,273,508 „

Of the exports for 1864, 24,000,000 gallons were refined, and 8,000,000 crude, representing a money value abroad; at the price of two shillings a gallon for refined oil, of about £3,250,000 in gold, giving the United States, at the current rate of exchange during the past year, a purchasing power in European markets amounting to \$45,000,000 in U.S. currency.

There were in the United States, in 1865, 1457 oil companies, with a total capital of \$869,594,000 (£172,918,800).

The present yield is estimated to be at the rate of about 250,000 or 300,000 barrels per week.

A correspondent, writing from one of the large springs, says:—"Gazing at the operations of this well, seeing an unvarying stream as large as one's wrist pouring out day and night, without cessation, the thing becomes really marvellous. Here somebody has punched a hole in the ground, thrust in an iron tube with a spout, erected enormous reservoirs, and straightway up the tube, through the spout, and into the tanks, there flow \$11,000 *every day*. He does nothing; he need not stay there; he may go to Europe, or to Halifax, but the work goes on just the same. Was there ever a similar case in the production of wealth? Gold-seeking has its charms and its votaries? But the gold-miner must go up into the gulches of the wintry mountains, and delve incessantly to be remunerated. Every ounce of gold dust comes to him only with labour. When he ceases to use the pick, the drill, the crusher, the washer, the flow of gold ceases. Can he drill a hole, plant a pipe in the rocks, and induce the glittering dust, of its own accord, to rush upward and outwards into prepared receptacles?"

CHAPTER III.

THE PUBLIC LANDS.

SINCE the adoption of the United States Constitution, the public lands owned by the States have been ceded to the General Government, and a separate department has been established under the Secretary of the Interior, for their regulation, and a system enacted by Congress for their survey and disposal.

The whole public domain is surveyed and divided by parallel lines into "townships" of six miles square. These are again divided by parallel lines exactly one mile apart. These last squares are called "sections," and contain 640 acres, which are again divided into half and quarter sections, and also eighths. These lands are offered for sale at the several land offices located in the districts to be sold. The price is fixed at one dollar and a quarter per acre. The purchaser comes in as the assignee of the United States, and receives a patent from the President. There are some fifty different land offices, and from two to three million acres are sold annually.

The following extracts from the annual reports of the Secretary of the Interior, presents some interesting facts with regard to the immense extent of these lands still

unoccupied in the Western Territories. The report for 1864 states as follows :—

“ From the foundation of the Government to the present time the management and disposal of the public lands have engrossed a large share of the public attention. Of the two thousand millions of acres embraced in the territorial extent of the United States, one thousand four hundred millions belonged to the public domain.

“ By a liberal policy in granting and selling lands, about one-third of this vast patrimony has been disposed of, leaving about one thousand millions of acres still the property of the Government. About one-fourth of all the laws that have been enacted by Congress relate to the public lands, and to the settlement of the land claims derived from the Governments which formerly had jurisdiction of the soil. At some periods of American history, a considerable income to the treasury has been derived from sales, and at others the cash receipts have declined to a sum but little exceeding the cost of administering the land system. During the first sixty years of the present century, the average income from sales was two and three-quarter millions of dollars per year, and the quantity disposed of by sales, and for military bounties, was about two hundred and five millions of acres.

“ During the last ten years the income from lands was less than during the preceding decade. This was occasioned by the large quantities of land—granted for internal improvements and for military and other purposes—which have competed in the market with the lands of the United States; and, more recently, by the passage of the Homestead Law, under which large quantities have been entered at nominal rates. The annual receipts from ordinary sales for four years past have been as follows :—

For the year ending June 30, 1861.....	\$884,887
For the year ending June 30, 1862.....	125,043
For the year ending June 30, 1863.....	136,077
For the year ending June 30, 1864.....	678,007
For the year ending June 30, 1865.....	748,427"

The depressing influences of civil war have been felt during the last few years, but the results demonstrate a revival of the annual demand for the public lands, particularly for settlement and cultivation.

The following is from the report for 1865:—

“During the fiscal year ending June 30, 1865, public lands were disposed of as follows:—

Acres sold for Cash	557,212
Acres located with Military Warrants	348,660
Acres located with Agricultural Scrip	460,130
Acres selected under Agricultural College Grant	808,358
Acres approved to the States as Swamp Lands ..	571,429
Acres approved to the States for Railways	607,415
Acres taken under the Homestead Law	1,160,532
	<hr/>
	4,513,736

During the quarter ending September 30, 1865, the aggregate number of acres taken for the same purposes was.....	880,591
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Making during five quarters the total number of acres	5,394,327
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“The cash receipts from sales, homestead, and location fees, for the same five quarters, ending September 30, 1865, were 1,038,400.

“The cash sales for the year ending June 30, 1865, amounted to \$748,427, an excess of \$70,420 over the sum received from the same source the previous year.

“During the fiscal year ending June 30, 1865, 4,161,778

acres of public lands were surveyed. The aggregate quantity of surveyed public lands undisposed of, September, 1865, was 132,285,035 acres.

“The act of September 4, 1841, and the supplemental act of March 3, 1843, confer upon actual settlers, upon certain specified conditions, the right to acquire by pre-emption surveyed public lands. Since that time the right has been by various acts extended to unsurveyed lands, but the period within which the claim must be preferred after settlement, differs in the several States and Territories, although proof and payment must be made in all before the day prescribed by proclamation of the President for the sale of the body of lands within which the pre-emption claimant has settled. In some the claim of settlement must be filed within three months after the return of the approved plat or survey to the local land offices; in others, within six months thereafter; in others, within three months after the survey has been made in the field; and in some of the newer Territories there is no specific provision on this subject, but all laws of the United States, which are not locally inapplicable, are declared to be in force.

“The Homestead Law has been in operation since the 1st day of January, 1863. Large bodies of lands have been entered under its provisions. Five years' continued residence is necessary to the perfection of the title of a Homestead settler unless he prefers to purchase the land at the minimum price, and obtain a patent. It is estimated that from forty to fifty per cent. of persons who have so claimed the privilege of the Homestead Law will prefer to make payment, and thus secure title before the expiration of the period when it would otherwise vest. The nominal sum paid by the Homestead settler, and the fee which he pays to the local

officers, are sufficient to cover the expense incident to the survey and the disposal of the land.

* * * * *

“The Commissioner of the General Land Office has held that the United States, as the successor of Mexico, has the exclusive and paramount right to all such sites as may be indispensable for forts or other public uses, and this right will be enforced unless Congress shall otherwise order.

“The organization of a Bureau of Mining was recommended in the last annual report of this department, and the attention of Congress is again invited to the subject. All lands denominated mineral, which do not bear the precious metals, should be brought into market, and thus placed under the guardianship of private owners. In no other mode, it is believed, can the great forests of timber—the growth of centuries, and of vast value to the nation—be effectually preserved from waste. Individual proprietorship, it is conceded, would stimulate the development of coal-fields, petroleum, deposits of iron, lead, and of other gross metals and mineral formations. There can, therefore, be no sufficient reason for withholding such mineral lands from market. Congress has not legislated with a view to securing an income from the product of the precious metals from the public domain. It is estimated that two or three thousand able-bodied men are engaged in such mining operations on the public lands without authority of law, who pay nothing to the Government for the privilege, or for the permanent possession of property worth, in many instances, millions to the claimant.”

HOW TO SECURE THE PUBLIC LANDS.

The following circular gives all necessary information as to the procedure necessary in purchasing and securing the public lands :—

DEPARTMENT OF THE INTERIOR,

GENERAL LAND OFFICE, July 19, 1865.

Numerous questions having arisen as to the mode of proceeding to purchase public lands, or acquire title to the same by bounty land locations, by pre-emptions or by homestead, this circular is communicated for the information of all concerned.

In order to acquire title to public lands the following steps must be taken :—

1. Application must be made to the Register of the district land office in which the land desired may be situated.

A list of all the land offices in the United States is furnished by the Department, with the seat of the different offices, where it is the duty of the Register and Receiver to be in attendance, and give proper facilities and information to persons desirous of obtaining lands.

The minimum price of ordinary public lands is \$1 25c. per acre. The even or reserved sections falling within railway grants are increased to double the minimum price, being \$2 50c. per acre.

Lands once offered at public sale, and not afterwards kept out of market by reservation, or otherwise, so as to prevent free competition, *may be entered or located.*

2. By the applicant filing with the Register his written application describing the tract, with its area ; the Register will then certify to the Receiver, whether the land is vacant, with its price ; and when found to be so, the applicant must pay that price per acre, or may locate the same with land warrant, and thereafter the Receiver will give him a "duplicate receipt," which he is required to surrender prior to the delivery to him of the patent, which may be had either by application for it to the Register or to the General Land Office

3. If the tract has not been offered at public sale it is not liable to ordinary private entry, but may be secured by a party legally qualified upon his compliance with the requirements of the pre-emption laws of 4th September, 1841, and 3rd March, 1843 ; and after such party shall have made actual settlement for such a length of time as will show he designs it for his permanent home, and is acting in good faith, building

a house and residing therein, he may proceed to the district land office, establish his pre-emption claim according to law by proving his actual residence and cultivation, and showing that he is otherwise within the purview of these acts. Then he can enter the land at one dollar and a quarter, either with cash or with bounty land warrant, unless the premises should be two dollars and a half acre lands. In that case the whole purchase-money can be paid in cash, or one-half in cash, the residue with a bounty land warrant.

4. But if parties legally qualified desire to obtain title under the Homestead Act of 20th May, 1862, they can do so on complying with the Department Circular, dated 30th October, 1862.

5. The law confines Homestead entries to surveyed lands; and although, in certain States and Territories noted in the subjoined list, pre-emptors may go on and before survey, yet they can only establish their claim after return of survey, but must file their pre-emption declaration within three months after receipt of official plat, at the local land office where the settlement was made before survey. Where, however, it was made after survey, the claimant must file within three months after date of settlement; and where actual residence and cultivation have been long enough to show that the claimant has made the land his permanent home, he can establish his claim, and pay for the same at any time before the date of the public sale of lands within the range of which his settlement may fall.

6. All unoffered surveyed lands not acquired under pre-emption, homestead, or otherwise, under express legal sanction, must be offered at public sale under the President's proclamation, and struck off to the highest bidder, as required by the Act of April 24, 1820.

J. M. EDMUNDS,

Commissioner General Land Office.

SURVEYS OF THE PUBLIC LANDS.

The following tabular statement shows the number of acres of public lands surveyed in the different States and Territories up to June 30, 1863, of public lands and private land claims during the last fiscal year, and the total of the public lands surveyed up to June 30, 1864, and also the total area of the public domain remaining unsurveyed.

States and Territories.	Surveyed up to June 30th, 1863.	Surveyed within the fiscal year ending June 30, 1864.	Total Surveyed up to June 30, 1864.	Total remaining unsurveyed June 30, 1864.
	Acres.	Acres.	Acres.	Acres.
Wisconsin	32,570,590	410,933	32,981,523	1,529,837
Iowa	35,630,898	....	35,630,898	.....
Minnesota	20,404,088	599,305	21,003,393	30,443,648
Kansas	13,883,645	695,275	14,578,920	37,464,600
Nebraska Territory	11,174,112	733,405	11,907,517	26,729,283
California	26,463,404	258,991	26,722,395	74,937,285
Nevada Territory	147,584	269,849	417,433	51,767,527
Oregon	4,842,061	224,369	5,066,430	55,892,290
Washington Territory ..	2,893,715	137,579	3,031,294	41,746,866
Colorado Territory	161,064	431,076	592,140	66,287,860
Utah Territory	2,425,239	....	2,425,239	65,659,241
Airzona Territory .....	.....	....	.....	80,730,240
New Mexico Territory ..	2,293,142	....	2,293,142	75,275,498
Dacotah Territory*	936,422	495,208	1,431,630	152,550,450
Idaho Territory† .....	.....	....	.....	58,196,480
Montana Territory‡ ....	.....	....	.....	92,016,640
Totals§	153,825,964	4,255,990	158,081,954	921,245,745

* By the Act of May 26, 1864, the area of Dacotah Territory was increased by attaching to it 58,665,600 square acres off the south-east corner of the original Territory of Idaho.

† Reduced in area.—See Act May 26, 1864.

‡ Montana was erected into a separate Territory out of the former territory of Idaho, by the Act of May, 1864.

§ The aggregate area of the whole public domain may be obtained by adding to the totals of the above lands surveyed and remaining to be surveyed the areas of the following public land States, in which all or nearly all the public lands have been surveyed, viz.: Illinois, 35,462,400 square acres; Ohio, 25,276,960 square acres; Mississippi, 30,179,840 square acres; Florida, 37,931,520 square acres; Missouri, 41,824,000 square acres; Indiana, 21,637,760 square acres; Louisiana, 26,461,440 square acres; Michigan, 36,128,640 square acres; Alabama, 32,462,080 square acres; Arkansas, 33,406,720 square acres; Indian Territory, 44,154,240 square acres.

ACRES

Total area, exclusive of water-courses, etc.....1,444,703,273

Area water surface, lakes and rivers..... 5,296,727

Making an aggregate area of the public domain 1,450,000,000

The following is a copy of the well-known Act:—

**“AN ACT TO SECURE HOMESTEADS TO ACTUAL SETTLERS
ON THE PUBLIC DOMAIN.**

“Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That any person who is the head of a family, or who has arrived at the age of twenty-one years, and is a citizen of the United States, or who shall have filed his declaration of intention to become such, as required by the naturalization laws of the United States, and who has never borne arms against the United States Government or given aid and comfort to its enemies, shall, from and after the first of January, eighteen hundred and sixty-three, be entitled to enter one quarter section or a less quantity of unappropriated public lands, upon which said person may have filed a pre-emption claim, or which may, at the time the application is made, be subject to pre-emption at one dollar and twenty-five cents, or less, per acre; or eighty acres, or less, of such unappropriated lands, at two dollars and fifty cents per acre, to be located in a body, in conformity to the legal subdivisions of the public lands, and after the same shall have been surveyed: Provided, That any person owning and residing, on land may, under the provisions of this act, enter other land lying contiguous to his or her said land, which shall not, with the land so already owned and occupied, exceed in the aggregate one hundred and sixty acres.

“Sec. 2. And be it further enacted, That the person applying for the benefit of this act shall, upon application to the register of the land office in which he or she is about to make such entry, make affidavit before the said register or receiver that he or she is the head of a family, or is twenty-one or more years of age, or shall have performed service in the army or navy of the United States, and that he has never borne arms against the Government of the United States or given aid and comfort to its enemies, and that such application is made for his or her exclusive use and benefit, and that said entry is made for the purpose of actual settlement and cultivation, and not, either directly or indirectly, for the use or benefit of any other person or persons whomsoever; and upon filing the said affidavit with the register or receiver, and on payment of ten dollars, he or she shall thereupon be permitted to enter the quantity of land specified: Provided, however, That no certificate shall be given or patent issued therefore until the expiration of five years

from the date of such entry ; and if, at the expiration of such time, or at any time within two years thereafter, the person making such entry—or, if he be dead, his widow ; or in case of her death, his heirs or devisee ; or in case of a widow making such entry, her heirs or devisee in case of her death—shall prove by two credible witnesses that he, she, or they have resided upon or cultivated the same for the term of five years immediately succeeding the time of filing the affidavit aforesaid, and shall make affidavit that no part of said land has been alienated, and that he has borne true allegiance to the Government of the United States ; then, in such case, he, she, or they, if at any time a citizen of the United States, shall be entitled to a patent, as in other cases provided for by law : And provided, further, That in case of the death of both father and mother, leaving an infant child, or children under twenty-one years of age, the right and fee shall enure to the benefit of said infant child or children ; and the executor, administrator, or guardian may, at any time within two years after the death of the surviving parent, and in accordance with the laws of the State in which such children for the time being have their domicile, sell said land for the benefit of said infants, but for no other purpose ; and the purchaser shall acquire the absolute title by the purchase, and be entitled to a patent from the United States, on payment of the office fees and sum of money herein specified.

“Sec. 3. And be it further enacted, That the register of the land office shall note all such applications on the tract books and plats of his office, and keep a register of all such entries, and make return thereof to the General Land Office, together with the proof upon which they have been founded.

“Sec. 4. And be it further enacted, That no lands acquired under the provisions of this act shall in any event become liable to the satisfaction of any debt or debts contracted prior to the issuing of the patent therefore.

“Sec. 5. And be it further enacted, That, if at any time after the filing of the affidavit, as required in the second section of this act, and before the expiration of the five years aforesaid, it shall be proven, after due notice to the settler, to the satisfaction of the register of the land office, that the person having filed such affidavit shall have actually changed his or her residence, or abandoned the said land for more than six months at any time, then and in that event the land so entered shall revert to the Government.

"Sec. 6. And be it further enacted, That no individual shall be permitted to acquire title to more than one quarter section under the provisions of this act; and that the commissioner of the General Land Office is hereby required to prepare and issue such rules and regulations, consistent with this act, as shall be necessary and proper to carry its provisions into effect, and that the registers and receivers of the several land offices shall be entitled to receive the same compensation for any lands entered under the provisions of this act that they are now entitled to receive when the same quantity of land is entered with money, one-half to be paid by the person making the application at the time of so doing, and the other half on the issue of the certificate by the person to whom it may be issued; but this shall not be construed to enlarge the maximum of compensation now prescribed by law for any register or receiver: Provided, That nothing contained in this act shall be so construed as to impair or interfere in any manner whatever with existing pre-emption rights: And provided, further, That all persons who may have filed their applications for a pre-emption right prior to the passage of this act, shall be entitled to all privileges of this act: Provided, further, That no person who has served, or may hereafter serve, for a period of not less than fourteen days in the army or navy of the United States, either regular or volunteer, under the laws thereof, during the existence of an actual war, domestic or foreign, shall be deprived of the benefits of this act on account of not having attained the age of twenty-one years.

"Sec. 7. And be it further enacted, That the fifth section of the act entitled, 'An act in addition to an act more effectually to provide for the punishment of certain crimes against the United States, and for other purposes,' approved the third of March, in the year eighteen hundred and fifty-seven, shall extend to all oaths, affirmations, and affidavits, required or authorized by this act.

"Sec. 8. And be it further enacted, That nothing in this act shall be so construed as to prevent any person who has availed him or herself of the benefits of the first section of this act from paying the minimum price, or the price to which the same may have graduated, for the quantity of land so entered at any time before the expiration of the five years, and obtaining a patent therefore from the Government, as in other cases provided by law, on making proof of settlement and cultivation as provided by existing laws granting pre-emption rights.

"Approved May 20, 1862."

In all the Middle and Western States good cleared farms with necessary buildings may be purchased at from \$20 to \$30 (£4 to £10) per acre, and in some instances still lower; while uncleared land can be purchased at from \$3 to \$10 per acre, according to quality and situation, timber land in most of the States being somewhat dearer than prairie. Many of the railway companies, notably the Illinois Central and the North Missouri, offer land at moderate prices, ranging from \$6 to \$30 per acre, and give credit extending over a period of seven years.

CHAPTER IV.

GOVERNMENT.

THE government of the United States is a Federal Republic, composed of thirty-seven States, ten Territories, and the District of Columbia. The government is based on the constitution of 1787. By the constitution, the government of the nation is vested in three separate authorities: the Executive, the Legislative, and the Judicial.

THE EXECUTIVE.

The executive power is vested in a President, who is elected by electors, chosen by the popular vote, the number being equal to the total number of senators and representatives in the National Congress. The President's term of office is four years, but he is eligible for re-election.

The manner of the presidential election is as follows: According to an Act of Congress passed in 1845, the elections for President and Vice-President are held in all the States every fourth year, on the first Tuesday, after the first Monday, in November; and on the fourth of March following the President elect is inaugurated. The

voting is not direct for the President, but for electors. Voting in the United States is by ballot, and all citizens are entitled to the franchise.

According to Clause 2, Section 1, Article 2, of the United States Constitution, each State is entitled to the same number of electors as it has senators and representatives in Congress, which is as follows:—

Alabama.....	6	Michigan	6
Arkansas	3	Minnesota	2
California	3	New Hampshire	3
Colorado	1	New Jersey	5
Connecticut	4	New York	31
Delaware.....	1	Nevada	1
Florida.....	1	North Carolina.....	7
Georgia.....	7	Ohio	19
Indiana	11	Oregon	1
Illinois.....	14	Pennsylvania.....	24
Iowa.....	6	Rhode Island	2
Kansas.....	1	South Carolina.....	4
Kentucky.....	9	Tennessee	8
Louisiana.....	5	Texas.....	4
Maine	5	Virginia.....	8
Maryland.....	5	Vermont.....	3
Massachusetts.....	10	West Virginia.....	3
Mississippi	5	Wisconsin.....	6
Missouri	9		
Total Representatives.....			241
Number of Senators—each State sending two.....			74
Total number of Electors			315

Each of the different political parties holds a National Convention a few months previous to the election, and

adopts a "platform," or series of resolutions defining the principles of the party, and nominates candidates for President and Vice-President.

The various political organizations in each State, nominate, from their own party, the number of electors to which their State is entitled, and the electoral ticket, which receives a plurality of votes, is elected. The result of the presidential election is known as soon as the election returns are received from all the States, although the electors do not meet till the first Wednesday in December, nor is the President legally elected until the electoral votes are counted by the President of the Senate, on the second Wednesday in February.

According to Article 12 of the Amendments to the United States Constitution, the electors meet in their respective States, and vote by ballot for President and Vice-President, and transmit certificates of the result to the President of the Senate at Washington, who opens all the certificates in the presence of the Senate and House of Representatives, and the votes are then counted. *A majority of the whole number of electors is necessary for a choice, and if no candidate has such a majority, the House of Representatives is to choose the President from the three having the highest vote—each State having but one vote, and a majority of all the States being necessary to a choice.* [See the 12th Amendment, U.S. Constitution.]

No person is eligible to the office of President or Vice-President who is not a native born citizen, of the age of thirty-five years, and who has not been a resident of the United States for fourteen years. The President is Commander-in-chief of the army and navy, and of the militia when in the service of the Union. With the concurrence of two-thirds of the Senate, he has the power to make treaties, appoint civil and military officers, levy war, con-

clude peace, and do all that rightly belongs to the executive power. He has a veto on all laws passed by Congress, but so qualified, that notwithstanding his disapproval, any bill becomes a law on its being afterwards confirmed by two-thirds of both Houses of Congress. The President has an annual salary of \$25,000, and the Vice-President \$8000.

THE LEGISLATURE.

All legislative powers are vested in Congress, which consists of a Senate and House of Representatives.

The House of Representatives is composed of members chosen every second year by the people of the several States, apportioned according to the population of each. The number each State is entitled to is determined by a census taken every ten years. In addition to these representatives from States, the House admits a delegate from each organized Territory, who has the right to debate on subjects in which his Territory is interested, but is not entitled to a vote.

The "Senate" consists of two members from each State, elected by the Legislatures thereof respectively for six years. One-third of the whole body is renewed biennially, and if vacancies occur, by resignation or otherwise, during the recess of the Legislature of any State, the executive of such State makes a temporary appointment until the next meeting of the Legislature, which fills such vacancy. Senators must be at least thirty years of age, must have been citizens of the United States for nine years, and be residents of the State by which they are chosen. Each Senator has one vote. The Vice-President of the United States is, *ex officio*, President of the Senate,

but a President, *pro tempore*, is elected by and from among the Senators, who, in the absence of the Vice-President, acts in his stead.

The administrative business of the nation is conducted by several officers, with the title of secretaries, who form what is called the "Cabinet." They are appointed by the President. Each of the secretaries presides over a separate department, under the authority of the President. Their salaries are \$8000 per annum.

THE JUDICIARY.

The judicial powers of the United States are vested in a Supreme Court, and in such other inferior courts as Congress may from time to time establish. The present judicial establishment consists of a Supreme Court, Circuit Courts, and District Courts. The appointment of all judges of the United States is made by the President, by and with the advice of the Senate, and the judges hold their several offices during good behaviour, and can be removed only on impeachment. Their compensation is fixed by law, and cannot be diminished during their period of office. The "Supreme Court," the highest judicial tribunal of the Union, is composed of a chief justice and eight associate justices, the attorney-general, a reporter, and a clerk. One session is held annually at Washington, commencing on the first Monday in December, the first day of the regular sessions of Congress.

RESPECTIVE POWERS OF NATIONAL AND STATE GOVERNMENTS.

To understand properly the theory and operation of the Federal Government, the peculiar relations of the FEDERATIVE SYSTEM must be considered. It should be remembered that while there is a *National Government*, having for its objects *National* and chiefly external affairs, there are also *separate State Governments*, with Executive, Legislative, and Judicial departments, having for their object local and wholly internal affairs.

By Section 8th, Article 1st of the Constitution, the States have delegated to Congress the power to declare war, to make peace, to enter into treaties, coin money, regulate commerce, and in short all functions characteristic of national sovereignty ; and by Section 10th, the exercise of these national powers by the States is prohibited. Also by Article 10th of the amendments, the powers not delegated to Congress are *reserved to the States* or to the *people*. Therefore the powers to enact municipal laws, or laws which concern only the States directly and immediately, are among the reserved rights of the States and the people, and are vested by the people in the State Legislatures.

Thus the States having reserved these internal powers, neither the President nor the National Congress, under the Constitution, have any power to interfere with them in their internal, local, and domestic affairs.

On the other hand, the States, having delegated to Congress those characteristics which pertain to national sovereignty, they have no control over such national and external affairs.

The separate States are, therefore, *sovereign in a municipal capacity* ; while the General Government is *sovereign in a national capacity*, and is represented and known officially as the government of one nation.

The constitutions of the several States all agree in their main features. In all there is the same form, and the same principles lie at their foundation.

The chief executive officer in each State is the Governor. The duties of the Governors in the States are analogous to those of the President in the United States Government. They have the nomination, and, in conjunction with the Senate, the appointment of many important officers. Like the President, they make recommendations to the Legislature, and take care that the laws are executed. Like the President, they may be impeached and removed for treason, bribery, or other high crimes.

The departments of executive officers under the State Governments are also organized in analogy to those of the General Government. They have departments of State, Treasury, etc. But the departments of war, navy, post-office, and mint, do not exist under the State Governments, since the States have no power over these matters.

The leading provisions of the State Constitutions are also very analogous to those of the National Constitution. Indeed, the latter has, in a great measure, been the model of all the State Constitutions formed since its adoption.

Like the General Government, the powers of the State Governments are divided into three departments—Legislative, Executive, and Judicial. The legislative department is likewise divided into two branches—the Senate and House of Assembly ; the former elected by larger constituencies, and generally for a longer time, than the latter. They are governed by the same rules of procedure as the

National Government. These are derived from the rules of the British Parliament, except where the peculiar circumstances of Republican government render them inadmissible. They, like Congress, decide on the qualifications of their own members, and determine the rules of their own proceedings.

Every Bill, like the laws of Congress, requires the signature of the Governor to become a law, and he also has the power of vetoing it; when, unless subsequently passed by a majority of two-thirds of both Houses, it is rejected.

The chief business of the State Legislatures is performed by the Committees, who are also constituted in the same manner as in the National Congress, being generally appointed by the Speaker of the House and the President of the Senate.

There are, however, some minor differences between the different State constitutions; for instance, in respect to the right of suffrage; but in most of the States, the qualifications are so low, that the right of suffrage, in reality, is universal among all white male citizens above twenty-one years of age. In eight of the Northern States coloured persons are entitled to a vote.

Without entering into detail, we will briefly notice some of the important powers possessed by the separate State Governments.

First. The enactment of domestic and municipal laws, and the enforcement of them by a proper organization of judicial courts. These constitute the large mass of objects upon which the State Legislatures are occupied.

Among them are—

1. Those which relate to corporate and public bodies, incorporating railway and stock companies, chartering banks and literary and public institutions, taxation, etc.

2. Police regulations, and the punishment of crimes, except crimes committed against the General Government.

3. Those which concern private property and rights.

Second. The power of officering the militia and governing them when not called into service by the General Government.

Third. The co-operation in the amendments of the Constitution, three-fourths of the States being required to assent to every amendment.

Fourth. The mode of choosing the President of the United States, appointing the "electors" in such manner as the State Legislature shall direct.

GOVERNMENT OF THE TERRITORIES.

In addition to the thirty-seven States, there is a large district of land belonging to the United States stretching westward, and extending to the Pacific. It embraces an area of 1,344,000 square miles, and is divided into ten districts, called "Territories." Notwithstanding their immense area, they only contained in 1860 a white population of 220,149. They are mostly inhabited by tribes of savage Indians, but are rapidly being settled. These Territories are under the control of Congress; but any of them may be admitted into the Union as States on the same footing as the other States, on attaining the population necessary for one representative in Congress—viz., 124,000.

Each Territory is established on the condition that Congress may thereafter divide the same, or annex any

portion of it to another Territory, or to a State. The relations sustained by each of them to the General Government are nearly identical.

The first and second clauses of Section 3rd, Article 4th, of the Constitution, are the basis upon which Congress erect and administer the Territorial Governments, and subsequently admit them into the Union. Under the old confederation, no such provision existed; and so little anticipation was had of the growth and prosperity of those wild regions—whose population has since more than trebled the original States—that no provision existed for forming or admitting them. Since the adoption of the present Constitution, however, by the thirteen original States, twenty-four new States have been formed, principally out of the Territories, and have adopted, assented to, and ratified the Constitution, and become integral parts of the Union—making thirty-seven States in all—nine Territories still remaining.

The power given by the Constitution to form new States is one of the new principles introduced into this system of government, and is at once the most novel and most influential upon its future destiny of any. Many of the nations of antiquity held immense provinces, which constituted a part of the State, for the purposes of revenue and armies; but they were never admitted upon terms of equality, and their inhabitants were never citizens. The idea of constituting a government, to be indefinitely developed by its own colonization, is wholly new. The principle is simply this, that a colony settled upon an adjacent Territory, and within the jurisdiction of the United States, whether it be composed of citizens of the Union, or emigrants from foreign nations, shall, on attaining a specific population, be admitted to equal rights, privileges, and powers with the original States. This principle is like-

wise unlimited in respect to the number, distance, or settlement of the colonies. The consequence is, that the original thirteen States are left in a minority as to power in that Government which they formed, and of which they were the sole possessors.

The power of Congress over the public Territory is exclusive and universal, except so far as its authority is restrained by stipulations in the cessions. This is not the case, however, with merely national property, such as forts and arsenals, where the States have not ceded the jurisdiction; but in such cases, the jurisdiction of the State continues, subject to the just exercise of the proper powers of the National Government.

In the year 1820, upon the admission of Missouri into the Union as a State by an Act of Congress, a question was raised whether a clause in the Act restricting the admission of slaves into the State was constitutional. That question was not directly decided, but it was indirectly by the Act passed in 1820, known as the Missouri compromise, which declared that, in all the Territory north of lat. 36 deg. 30 min., not included within the limits of Missouri, slavery and involuntary servitude should for ever be prohibited. This Act has since been repealed.

The Governor, Secretary, United States Attorney, and Marshal are appointed for each Territory by the President for four years. The Legislative Assembly consists of a Council and House of Representatives elected by the people. All laws passed by the Legislature, and approved by the Governors, must be submitted to the National Congress, and, if disapproved, are null and void. The Judiciary is vested in a Supreme Court and other Inferior Courts, from which there is an appeal to the Supreme Court of the United States.

The Constitution and laws of the United States have

the same force as in the States. Each Territory sends a delegate to the Lower House of the National Congress, who is entitled to speak and debate on all matters in which his constituents are interested, but is not entitled to a vote in the House. The right of suffrage is granted to every free white male citizen of the age of twenty-one years.

Two sections (of 640 acres) of land in each township, of six miles square, are reserved for common schools.

CHAPTER V.

THE STATES AND TERRITORIES.

THE thirty-seven States are, for convenience of description, usually divided into five groups, called respectively, Eastern, Middle, Southern, Western, and Pacific. Besides these there are nine Territories, which lie between the Mississippi River and the Pacific States.

THE EASTERN, OR NEW ENGLAND STATES.

MAINE, NEW HAMPSHIRE, VERMONT, MASSACHUSETTS,
RHODE ISLAND, CONNECTICUT.

The New England division of the United States is in many respects the most remarkable and characteristic. The six States which form it comprise the earliest settled and best improved portion of the Union.

Its coast of great extent is deeply indented with bays and a number of excellent harbours. Towards the north the shore is diversified by sloping hills and bold promontories. Situated upon a basis of primitive rocks, its physical features are generally of a bold and rugged cast. The principal mountains rise in chains or detached groups, increasing towards the north to an almost alpine elevation.

The chief group is that of the White Mountains in New Hampshire, so named from its being ten months in the year covered with snow. Mount Washington, whose

“battlements stand clothed in heaven’s own hue,
To swell as freedom’s home on man’s unbounded view!”

is the highest peak.

The face of the country consists principally of a broad highland tract, diversified by mountain ranges. These give a bold and rugged aspect to the country, which seldom expands into those wide and fertile plains which enrich a large portion of the more Southern States. The soil, though to a great extent sterile, is, in places where it is well watered, capable of an extensive cultivation. It is best adapted for pasturage and grains of a secondary quality. The chief river is the Connecticut, which rises near the border of Canada, and traverses the finest part of the country, amid high but pastoral valleys, the lower portion bordered by alluvial plains and fertile meadows.

The climate is variable, and subject to extremes of heat and cold. The winters are long and severe, especially in the North, where the snow remains on the ground for nearly six months of the year. It is by no means an unusual thing for the temperature to fall even to twenty degrees below zero. Cold eastern winds, attended with thick fogs, prevail on the coast, especially in Maine. The climate, however, is less rigorous on the Southern borders.

The New Englanders are, with a few exceptions, descendants of the English Puritan fathers, who fled from the prelate persecution to which they were subjected in England at the beginning of the seventeenth century. Until lately they have received but a small accession of foreigners.

They have, however, multiplied to such an extent, as not only to people their own territory but also to supply a large number of settlers for the Western and Southern States, and it is computed that nearly one-third of the United States population is of New England origin. The term Yankees, which in England and other countries is familiarly applied to all Americans, is, strictly speaking, only applicable to the New Englanders. They are highly distinguished for their plain-dealing, intelligence, and thrift, and their ingenuity and "cuteness" are proverbial. Their habits of industry and prudence—which may be traced partly to the character of their ancestry—have developed the cultivation of a soil naturally rugged and somewhat barren; and though the limited agricultural capabilities of this section have compelled a large number of its inhabitants to turn their attention to manufactures and other resources, yet the soil is well cultivated; and even in the more rugged and mountainous regions a great portion has been devoted to the pasturage of live stock. Hay and potatoes are the chief crops. Of the cereal grains, Indian corn and oats are principally cultivated. The most important branch of New England industry, however, is its manufactures. Favoured by abundant water-power on its streams, thousands of mills have been erected, and an endless variety of fabrics are produced; the chief of which are cotton and woollen goods, boots and shoes, machinery, and small wares.

The nearness of the Eastern States to the best fishing grounds in the Northern Atlantic, and the facilities afforded by their numerous harbours, have led many of the inhabitants along the sea-board to engage in the fisheries. They have almost a monopoly of the whale, cod, and mackerel fisheries prosecuted under the flag of the United States; and the chief control, or an ample share, of many others.

The people are chiefly Protestants; and, in proportion to population, there are more churches in New England than in any other part of the country.

In respect to education this is the foremost section of the Union. The system of free public schools established here—especially as developed in two or three of the leading States—is of the highest excellence, and has served as a model in other parts of the country.

The commerce of New England, both maritime and inland, is extensive. Foreign goods are largely imported, and are distributed, with home manufactures, oils, fish, etc., to all parts of the Union. In exchange many products, from the cotton of the South to the bread-stuffs of the North-West, are received, as well for exportation as for consumption. The superior facilities for the building and outfit of vessels enable it to engage extensively in the transporting of merchandise, and New England has now nearly one-third of the shipping and seamen in the merchant service of the United States, besides a large force engaged in the fisheries.

Of the entire length of railways in the United States, nearly one-eighth is in New England. Navigable canals are in various parts, but their use is mostly superseded by railways.

MAINE.

This State was settled by the English in 1625, being four years after the landing of the Puritan "Pilgrims" in Massachusetts, to which State Maine belonged till 1820, when it was admitted into the Union as a separate State. It has an area of 35,000 square miles, and in 1860 had a

population of 628,279. State capital, Augusta. The surface is varied, being comparatively level in the southern portion, for about twenty miles from the coast; while the interior is hilly, and the northern portion rugged and mountainous. The most fertile portion is the central southern region, between the Penobscot and Kennebec rivers. The mountains of the north are bold and imposing, the Peak of Katahdin having an elevation of 5385 feet above the level of the sea. The lakes, of which Mooshead is the largest, are numerous, and often very beautiful. The State is also traversed by numerous rivers, and it is estimated that about one-tenth part of the State is covered with water. The coast is the finest in the Union in its remarkably bold, rocky character, and in its beautiful harbours, bays, and islands.

The number of islands on the coast is about 400. Most of these are small, but many are of considerable size, fertile, and inhabited. The climate, though marked by extremes, both of heat and cold, is yet everywhere most healthful and salubrious, its rigour being much modified by the proximity of the ocean.

The sportsman will find the deer, moose, and wild fowls abounding in the dense forests which yet cover a large portion of the State, and the finest fish in its lakes and streams. These regions may be traversed by the tourist through the paths of the "lumbermen," at whose "shanties" he may comfortably bivouac. Immense pine forests cover a large portion of the unoccupied parts of the State. These give employment to a number of persons in the cutting and sawing of the timber, which is exported in large quantities, and is a source of great wealth to the State.

Only those branches of agriculture which are peculiarly suited to the character of the State are extensively

prosecuted. The chief products are Indian corn, oats, potatoes, and hay. The dairy products are very large.

In the cod-fishery this State is unequalled, and in the fisheries for mackerel and other small fish has but a single superior.

In respect to manufactures, the State is behind most other sections of New England; yet, in the total value of its manufactured products, including timber, it is surpassed only by Massachusetts. Quicklime is prepared in large quantities at Rockland and Thomaston.

There are more sea-going vessels built here than in any other State; and Maine has a greater tonnage of shipping engaged in the coasting-trade than any other State except New York. It has, likewise, many vessels employed in foreign commerce; much of the trade of the Canadas—especially in winter—being conducted through Portland, its chief sea-port. Among the principal exports, besides the industrial products already referred to, are granite and ice.

The chief towns are:—

	Pop. in 1860.	Characteristics.
Portland	26,000	Fine harbour; important foreign and coastwise commerce; considerable ship-building.
Bangor.....	16,000	Thriving maritime commerce; immense trade in timber; Congregationalist theological seminary.
Biddeford .....9,000 } and Saco.....6,000 }	15,000	City and town united by continuous streets; extensive cotton manufactures, machine-building, etc.; small coasting trade.
Augusta	12,000	State-capital; various manufactures; United States Arsenal; lunatic asylum.
Bath.....	8,000	Extensive ship-building; various manufactures; coasting trade.

	Pop. in 1860.	Characteristics.
Rockland	7,000	Manufactures of great quantities of lime; important ship-building; coasting trade.

NEW HAMPSHIRE.

The State of New Hampshire was settled by the English in 1623, three years after the landing of the Puritans in Massachusetts. It acceded to the Union in June, 1788, being one of the original thirteen States. It has an area of 9280 square miles, is divided into thirteen counties, and had a population, in 1860, of 326,175. The State capital is Concord. The surface is more rugged and mountainous than any other section of New England. The State is celebrated for the grandeur and beauty of its scenery, and is often called "The Switzerland of America." The White Mountains, on whose peaks the snow lies nearly all the summer, is a fashionable summer resort, and is yearly visited by thousands from every section of the Union, the only comparatively level section lies along the coast, which is scarcely eighteen miles long, and furnishes only one harbour.

Though interesting to the traveller or tourist, the State presents few inducements for settlement; and many of its rural population are emigrating to the more fertile regions of the West.

The soil of the State in general is ill adapted to tillage, but is well watered, and furnishes excellent pasturage.

The agricultural interests have little that is characteristic. In proportion to the extent of its arable land, however, it produces an unusually large share of Indian corn and potatoes. Iron-ore, found in nearly every county,

is profitably mined at Franconia and Lisbon. Granite is largely quarried in the south; and, on account of the abundance of this mineral, New Hampshire is called the "Granite State."

The leading branches of New England manufactures are extensively pursued in the south-east, where water-power is most abundant. In the cotton manufacture this State surpasses every other except Massachusetts. The direct foreign commerce is small, its exports and imports being forwarded chiefly through Boston, Massachusetts.

The New Hampshire Asylum for the Insane at Concord is one of the best establishments in the United States. There are others for the blind, and deaf and dumb.

The chief towns are:—

	Pop. in 1860.	Characteristics.
Manchester	.....20,000.....	Fourth city of America in the extent of its cotton manufactures; important manufactures of locomotive engines and other machinery, paper, etc.
Concord	.....11,000.....	State capital; country trade; carriage and machine manufactures; State prison; State lunatic asylum.
Nashua	.....10,000.....	Extensive manufactures of cotton cloths; also considerable manufactures of machinery, etc.
Portsmouth	..... 9,000.....	Only seaport in the State; excellent harbour; manufactures of lawns, hosiery, and cordage; United States navy-yard on an island in the harbour.

VERMONT.

This State was settled in 1724 by the English, chiefly from Connecticut, under a grant made by the New Hampshire colony. It acceded to the Union in 1791, being one

of the original thirteen States. It has an area of 10,212 square miles, is divided into thirteen counties, and had a population in 1860 of 315,116. State capital, Montpelier. The State is mountainous, the Green Mountains being a continuation of the Alleghany chain, and celebrated for their beauty and rich vegetation. Evergreens of various kinds clothe their steeps, and impart to them that verdant aspect whence is derived their name, as well as the name of the State. There are many points of interest in these mountains that have not yet received their due attention from tourists, but their claims are now being fully admitted. They extend from near New Haven, in Connecticut, northward through Massachusetts and Vermont, into Canada. After the White Mountains of New Hampshire, the "Green Hills" rank with the noblest groups west of the Rocky Mountains.

The soil generally is fertile. The western slope abounds in fine loam, well suited to grain-growing.

The State is, perhaps, more exclusively agricultural than any other in the Union, and more hay, potatoes, live-stock, wool, butter, cheese, and maple-sugar are produced in proportion to the population. A large proportion of the wheat crop of New England is raised in this section. Vermont is also celebrated for its superior breeds of horses.

Iron, copper, and other metals are mined to a limited extent in various districts. Marble and slate are extensively quarried. Several kinds of variegated marble are found here, among which is the celebrated *verd-antique* marble, once rare and valuable.

The annual value of manufactures is less than half as great as in any other of the New England States. It has a thriving commerce with the neighbouring States, and with Canada.

Chief Towns.	Pop. in 1860.	Characteristics.
Burlington	8000	Lake commerce ; inland trade ; University of Vermont ; beau- tiful surrounding scenery.
Rutland	8000	Important railway centre ; ex- tensive marble quarries ; great water-power ; country trade.
St. Albans	5000	Lake commerce and inland trade.

MASSACHUSETTS.

Massachusetts, the parent State of New England, and the chief manufacturing district of the United States, was settled in 1620 by English Puritans, who landed at Plymouth ; acceded to the Union in February, 1788 ; area, 7800 square miles ; State capital, Boston ; population 1,231,066. Every part of the State is well watered ; but in general the streams are more useful for agricultural and manufacturing purposes than as channels of communication.

The northern shore of Massachusetts is bold and rocky, and the coast everywhere is deeply indented, and presents several far projecting peninsulas and headlands, forming bays of unusual extent. Hence the appellation " Bay State." Massachusetts Bay, which gives its name to the State, is about seventy miles in length, and comprises Boston Bay and Cape Cod Bay. Boston harbour is one of the finest in the world, capacious, safe, easy of access, and easily defended ; but in the winter season it is sometimes ice-bound.

The climate of Massachusetts, though similar to that of the three States lying north of it, is not so extreme as that of either. It is very favourable to health, and a large ratio

of the inhabitants attain to a good old age. On the eastern and southern shores the summer season is delightfully tempered by the breezes from the ocean.

Agriculture is pursued with much energy and skill. Indian corn and orchard fruits are raised here more abundantly than in any other section of New England. But none of the crops are sufficient for supplying the home market. In the value of its manufactures, the State ranks first amongst the eastern group. More than half the boots and shoes of the United States, and nearly one-third of the cotton and woollen goods, besides a vast amount of other merchandise, are produced here. More ships are built here than in any other State except Maine. The fisheries are most extensive, and exceed those of all the rest of the Union, the whale fishery alone employing about 12,000 seamen. In foreign commerce the State ranks third among the United States. Its coasting trade is also great, and its inland trade proportionate to its maritime.

Besides manufactured goods, and the products of the fisheries, ice and granite are exported to a considerable amount. The granite, or sienite, quarried at Quincy and Rockport, in the eastern part of the State, is highly celebrated, and has furnished material for many of the finest edifices in the country. The first railway in the United States was built, from the Quincy quarries, to Neponset River, near Boston Bay.

Massachusetts is not, as far as yet ascertained, rich in minerals. Iron is found, however, in various parts of the State, and is extensively worked. It appears chiefly in the form of bog ore. Sulphuret of iron, or pyrites, occurs in the central districts, where it is used for the manufacture of copperas; and the plumbago found at Worcester and Stockbridge is used in the manufacture of lead pencils and crucibles. Lead mines exist in the Connecticut Valley.

The white clay of Martha's Vineyard furnishes alum ; and anthracite coal is now obtained in the Graywacke district to the west of Taunton River.

The chief cities and towns of Massachusetts are as follows :—

	Pop. in 1860.	Characteristics.
Boston {	city proper, 178,000 } metropolis, 268,000 }	Frequently styled the "Athens of America" — distinguished for its literary culture and especially for the excellence of its public schools; state capital; second commercial city on the continent, unrivalled in the extent of its coasting trade, and far exceeding in the value of its foreign imports every other city of the United States, except New York; yet ranking only fifth in the value of its exports to foreign countries; more extensive building of large sea-going vessels than at any other port in the country; important manufactures of machinery, piano-fortes, etc.; probably the wealthiest metropolis, according to its population, in the Union; its chartered banking capital amounting to about one-eleventh that of the whole United States.
Lowell	37,000.....	Second city of America in the extent of its cotton and woollen manufactures; noted also for its manufactures of machinery, lumber, powder, etc.
Cambridge	26,000.....	Harvard College—the oldest and best endowed university in America, with one of the largest libraries; extensive glass-works; Mount Auburn cemetery.

	Pop. in 1860.	Characteristics.
Roxbury	25,000.....	City continuous with Boston; beautiful suburban residences; various manufactures.
Charlestown	25,000.....	United States navy-yard; State prison; Bunker Hill Monument, marking the place of the first pitched battle of the Revolution; manufactures of furniture, etc.
Worcester	25,000.....	Important railway centre; various thriving manufactures; numerous literary institutions; State lunatic asylum.
New Bedford	22,000.....	Principal port of the whale fishery—more extensively engaged in this pursuit than any other port on the globe; wealth of its citizens.
Salem	22,000.....	Foreign commerce; importation of hides, African goods, etc.; extensive manufactures of leather in the city and vicinity; and the wealth of its citizens.

RHODE ISLAND.

This State was first settled at Providence in 1630, by Roger Williams. To the enlightened and liberal principles introduced by Williams into the government of Rhode Island, and by Penn and Lord Baltimore into the colonial constitutions of Pennsylvania and Maryland, America owes in a great degree her present condition of entire freedom of conscience, these being indeed the only colonies in which religious toleration existed. Rhode Island acceded to the Union in May, 1790, being one of the "original" States. The people were early and active participants in the war of the Revolution. It is the smallest of the States of the American confederacy, the entire area not exceeding 1306 square miles, with an extreme length and breadth, respectively, of 47 and 37 miles. The population of the State in 1860 was 174,620. The State capitals are alternately Providence and Newport.

The surface of Rhode Island resembles that of eastern Massachusetts. The country is most pleasantly varied with hill and dale, though there are no mountains of any great size. Compensation for this is found in the natural scenery, amid the numerous small lakes which abound, and by the beautiful waters, islands, and shores of Narragansett Bay. Providence and Newport are among the most ancient and most interesting places in the Union, the latter being one of the most fashionable of the numerous American watering-places.

The soil of the mainland is, in general, a gravelly loam, moderately fertile, but not easy of cultivation. On the islands it is of a slaty character, and quite productive. The insular portions of Rhode Island are among the best farm-

ing districts of New England. They are particularly noted for their live-stock, dairy-products, wool, and apples.

The manufactures of Rhode Island are cotton, iron, woollen goods, and leather. The direct foreign commerce, once considerable, is now comparatively small. Its imports and exports are chiefly through the ports of Massachusetts and New York.

Chief Towns.	Pop. in 1860.	Characteristics.
Providence	51,000.....	Joint capital of the State; extensive manufactures of machinery, jewellery, etc.; maritime commerce; numerous banks; Brown University.
Smithfield	13,000.....	Manufactures of cotton and woollen goods and lime.
North Providence	12,000.....	Manufactures of cotton goods, etc.; seat of the first cotton factory built in America; small coasting trade.
Newport	11,000.....	Joint capital of the State; famous summer resort for sea-bathing and amusement; capacious and strongly-fortified harbour.

CONNECTICUT.

This State was settled by the English Puritan emigrants from Massachusetts in 1633. In 1631 the Dutch had a trading house at Hartford, which soon after fell into the hands of the English. It acceded to the present Union, January 1788, and is, therefore, one of the original thirteen States. It has an area of 4750 square miles, and a population in 1860 of 460,147. The two capitals are New Haven and Hartford. The scenery is delightfully varied by

the passage of the Connecticut, the Housatonic, and other picturesque rivers; and of several low hill ranges. Spurs of the Green Mountains rise, here and there, in isolated groups or points through the western portions of the State. Lying between the mountain ranges are valleys of great luxuriance and beauty. The lakes among the mountains of the north-western corner of the State are very attractive.

The leading branches of New England agriculture are pursued here with much success. Besides other chief crops, rye is raised in abundance, and tobacco is much cultivated. Mines of iron, copper, silver-bearing lead, cobalt, nickel, etc., are worked. The deposits of copper in the interior of the State are extensive. Those of cobalt and nickel in the town of Chatham were, until recently, the only valuable stores of the kind known in the United States. Sandstone, granite, and various kinds of marble, among which is *verd-antique*, are largely quarried for exportation.

Connecticut is famed for the variety of its manufactures. Besides the leading articles, such as are commonly produced in most other parts of New England, clocks, paper, cutlery, edge-tools, fire-arms, pins, combs, and other small wares, are extensively made.

In the extent of its fishing interests, Connecticut ranks next to Massachusetts. It has an important share in the whale and cod fisheries; besides valuable fisheries for shad, etc., chiefly within its own waters.

The foreign commerce of the State is mainly conducted through New York and Boston. Its direct trade with the West Indies and British America, however, is important; and its coasting trade with domestic ports quite extensive.

A noteworthy characteristic of this State is, that not only are the several branches of the national industry more

equally distributed, but a greater interest in each is manifested by the people. Most persons have a share in either a workshop or a farm, being not unfrequently farmers at one season of the year, and manufacturers at another. It has been characteristically called the "land of steady habits."

The following are the chief towns:—

	Pop. in 1860.	Characteristics.
New Haven.....	39,000.....	Joint capital of the State; extensive manufactures; important coasting-trade; Yale College (one of the oldest and best universities in America); beautiful elms and shrubbery.
Hartford	29,000.....	Joint capital of the State; manufactures of machinery, fire-arms, boots, shoes, etc.; inland trade; Trinity College; deaf and dumb and insane asylums.
Norwich	14,000.....	Manufactures of cotton and woollen goods, railway carriages, etc.
Bridgeport	13,000.....	Manufactures of carriages, railway carriages, machinery, leather, etc.; coasting trade; fisheries.
New London	10,000.....	Admirable harbour; extensive whale and other fisheries; important coasting trade; line of steamers for route between New York and Boston.
Waterbury	10,000.....	Extensive manufactures of pins, buttons, brass and copper ware, etc.

THE MIDDLE STATES.

NEW YORK, NEW JERSEY, PENNSYLVANIA, DELAWARE,
MARYLAND.

The portion of the United States comprised in this division is of the highest mercantile and commercial importance. The great lakes and the St. Lawrence are the natural outlets of commerce in the north and west, and the numerous rivers flowing into the Atlantic, and the various canals and railways, convey to the eastward coast the productions of the interior. The surface, though often mountainous, is less rugged than that of New England. The mountains are remarkable for their regularity, their parallelism, their abrupt acclivities, the almost complete uniformity of their summits, and their moderate elevation; presenting the appearance of long and continuous walls. In a few sections, however, where the older crystalline rocks prevail, the mountains are of a different aspect. Generally the ranges are higher, and are more numerous and more indented toward the south. The coast is chiefly of tertiary and alluvial formation, and hence is comparatively level and deficient to some extent in navigable inlets. A narrow tract of older crystalline rocks, however, extending from Connecticut south-westerly, toward the head of Chesapeake Bay, gives bold shores and deep waters in the vicinity of New York city, and a portion on the lower course of the Hudson and Delaware rivers.

The soil, except in the most rugged sections, and upon the sandy plains along the coast, is productive.

The climate is chiefly distinguished for its contrasts. Near the sea-board it is of the usual maritime character; in the mountainous regions it is variable and subject to

extremes ; but west of the mountains it is comparatively uniform. In the south it is mild, and little snow falls, except upon the highlands, but in the far north the winter is long and severe.

A large portion of the Middle States was originally colonized by the Dutch, but now the inhabitants are chiefly of English ancestry. Society in this division cannot be said to possess any peculiarly distinctive aspect, and not unfrequently localities may be found in which the inhabitants still retain many of the habits and peculiarities of the nationalities from which they have sprung. Owing to the varied descent of the people of the Middle States, they are wanting in uniformity of character. Yet, in general, it may be remarked that they are distinguished for commercial enterprise, and for the readiness with which they embark in great undertakings.

Education is well diffused, and the means of instruction for the young are ample. A complete system of free public schools is established in each of the States, besides numerous well-endowed academies, colleges, and professional schools, generally of a high character. The schools of medicine, especially, are of excellent repute.

The extensive markets afforded by the great commercial cities, and many populous villages, of the Middle States, together with the favourableness of the soil and climate, have contributed very much to their advancement in agriculture. No part of America is more distinguished for economical and skilful farming. The chief cultivated staples, mentioned in the order of their value, are hay, Indian corn, wheat, oats, and potatoes. About one-third of the hay and potatoes, and more than half the rye and buckwheat, of the United States are raised here. Live-stock, butter, cheese, and wool, also, are among the chief products.

Several of the richest mining districts in the Union are included in this section. The most important are those of coal and iron, belonging chiefly to Pennsylvania. Petroleum, or rock-oil, is obtained in great abundance from wells in various regions west of the Alleghanies.

Manufactures, although employing a smaller share of the population than in New England, are extensively pursued in many localities. The principal are, iron castings, machinery, ready-made clothing, leather, flour and meal, sale boots and shoes, woollen goods, cotton goods, and sawed and planed timber. Rough timber is obtained in immense quantities near the sources of the Alleghany, Susquehannah, and Delaware rivers, and in northern New York. The manufactures of iron merchandise, ready-made clothing, and leather, are greater than in all the rest of the Union; while those of other articles above-mentioned are exceedingly large. The Middle States are noted, moreover, for their production of spirituous and malt liquors, refined sugar, cabinet furniture, books, stationery, hats and caps, glass-ware, jewellery, and silver-ware; also for their extensive building of steamers and small sailing vessels.

Of the entire external commerce of the United States, about two-thirds is transacted through the ports of the Middle States. An immense internal commerce, likewise, is maintained by way of their navigable rivers, canals, railways, and the neighbouring lakes. The chief exports to foreign markets of the varied products which are collected here from all parts of the country, are bread-stuffs, raw cotton, salted and smoked meats, tobacco, naval stores, and timber.

NEW YORK.

This State was first settled by the Dutch, at Fort Orange, now called Albany; and Manhattan, or New Amsterdam, now New York City, in 1614; seven years after the voyage of Hudson up the waters of that river which now bears his name.

In 1664, the colony fell into the possession of the English; was recaptured by the Dutch in 1673; and finally came again under British rule in 1674, and so continued until the period of the Revolution. It acceded to the Union in July, 1788. It is appropriately called the "Empire State," being the first in the Union in population, wealth, and commercial importance, and is unsurpassed in soil, climate, and in the variety and beauty of natural scenery, as well as in historical associations. The area of New York is 46,000 square miles, and it has a population of 3,880,735. Every variety of surface, and every character of physical aspect, is found within the great area of the State; which, however, for the most part is a plateau-like region, agreeably diversified with hills, valleys, and plains. In some sections, as in the neighbourhood of the Adirondack and Catskill mountains, and between the sources of the Susquehannah, and Alleghany rivers, it rises to the height of a true table-land. The soil is generally good, and, in most sections, peculiarly favourable to the growth of grasses. The river valleys and basin of the interior are highly productive.

In the northern portion of the State, and in the high-land regions of the southern border, stock and sheep raising, with dairy farming, are the almost exclusive agricultural pursuits; while the lowlands, that form the greater part of the surface of the western portion, are best adapted to grain growing. Large tracts in the vicinity of New

York city are devoted to market gardens. New York, though deficient in coal, abounds in iron, which exists in large quantities, especially in the eastern portion of the State. Lead is mined in the same region; and zinc, copper, platinum, silver, manganese, and bismuth are also found in various localities.

Petroleum is found in a number of places, together with jets of carburetted hydrogen, sufficient in some instances to maintain a constant flame. At Fredonia, this natural gas is so abundant, that it is sufficient to light the town, and the lighthouse at Portland, on Lake Erie, is supplied with it.

New York presents considerable diversities of climate. In the north, the winters are long and severe. Those portions affected by the winds from the ocean are more even in temperature, and suffer less from the frosts incidental to the spring and fall of the year.

In the value of its agricultural products, New York is only surpassed by Illinois; and more than seven-eighths of all the hops raised in the United States are from this State. It is unrivalled in its total yield of hay, oats, maple-sugar, beeswax, and honey, and in the value of its live stock, especially milch cows. Tobacco is extensively raised in the Chemung Valley, and grapes are successfully cultivated in the valley of the Hudson, and most of the lake valleys. Maple-sugar is an important product of the northern and central divisions; and fruits of all kinds, especially apples, pears, peaches, strawberries, are grown extensively in the western counties. On the banks of the Hudson River, particularly near Piermont, strawberries and raspberries are most successfully cultivated, the soil appearing to possess something peculiarly adapted to that kind of fruit. A yield of \$400 an acre is not uncommon, and the general product is so large in the strawberry season, that

a special train leaves Piermont every day for New York, with almost as much fruit as a locomotive can draw ; a steamboat also leaves every evening, calling at the different landings to take on a load of berries.

The manufacturing interests are extensive, and in many sections they surpass those of agriculture or commerce. Since the completion of lines of internal communication, manufactures have received more attention, and flourishing establishments are to be found in almost every part. Flour and meal, spirituous and malt liquors, ready-made clothing, steam machinery, iron-ware, sawed and planed timber, and cabinet furniture, are made here in greater amount than in any other State. From five to eight million bushels of salt are produced annually from springs in the vicinity of Syracuse.

The maritime commerce of New York is immense, exceeding that of all the rest of the Union. Its exports of raw produce, especially of bread-stuffs, are very extensive.

LONG ISLAND, part of the State, is 115 miles in length, and, at some points, 20 in breadth ; with the Atlantic on the south, and the Long Island Sound on the north. The upper part of the island is agreeably diversified with hills, though the surface is for the most part monotonously level. The coast is charmingly indented with bays ; and beautiful fresh-water ponds, fed by springs, are everywhere found on terraces of varying elevation. These little lakes, and the varied coast-views, give Long Island picturesque landscapes which, if not grand, are certainly of most attractive and winning character, and heightened by the rural beauty of the numerous quiet little towns and charming summer villas.

The lower shore of the island, which is a network of shallow, land-locked waters, extending 70 miles, abounds

with innumerable flocks of aquatic fowls, and is the favourite resort of the New York sportsmen. On this island is a vast tract of uncultivated land known as "The Barrens." Of late years public attention has been turned to its cultivation. A large bed of oysters has been discovered in Long Island Sound, two or three miles from the shore. The oysters are of most excellent quality, most of them of the proper age and growth to make them fit for immediate use.

The chief cities are:—

Pop. in 1860.

Characteristics.

New York	{ city proper ... 806,000 metropolis ... 1,111,000 }	Chief commercial metropolis of America, unsurpassed in its trade by any cities on the globe, except London and Liverpool; number of its inhabitants exceeding that of most of the individual States of the Union; extensive manufactures of clothing (amounting to about one-fourth of all in the United States), of iron merchandise and steam machinery, rich cabinet furniture, pianofortes, etc.; extensive publishing of books, newspapers, and other printed matter, and great sugar-refining business; vast exportation of grain, flour, and salted and smoked meats, and importation of dress goods, metals, sugar, tea, coffee, etc.; very extensive banking business, the chartered banking capital amounting to about one-seventh of all in the United States; numerous lines of steamers to Europe, Central America, the West Indies, etc.; many literary, scientific, and benevolent institutions, one of the most noted of the former being the Astor Library—the largest in America.
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	Pop. in 1860.	Characteristics.
Brooklyn	267,000.....	City adjoining and connected by steam-ferries with New York; the third in population among the cities of the United States; business of the inhabitants chiefly in New York; various manufactures; numerous spacious docks and store-houses; United States Navy Yard; great number of churches, Brooklyn being often called "The City of Churches;" Greenwood Cemetery, celebrated for its natural beauty and its tasteful and costly adornments.
Buffalo	81,000.....	Extensive commerce by lake, canal, and railway—the receipts and shipments of grain being greater than at any other port in the world; numerous lines of steam-packets to the principal lake-ports; manufactures of machinery, cars, etc.; Buffalo University.
Albany	62,000.....	State capital; large inland commerce; one of the greatest timber-marts in America; manufactures of malt liquors, iron merchandise, bricks, etc.; University of Albany, and other noted literary and scientific institutions; valuable State cabinet of natural history.
Rochester	48,000.....	Genesee waterfalls; most extensive manufacture of flour in the United States; also manufactures of edge-tools, weighing-scales, boots and shoes, cotton and woollen goods, etc.; Rochester University; Baptist theological seminary.
Troy	39,000.....	Large inland commerce, and tran-

Pop. in 1860.

Characteristics.

shipments of merchandise forwarded by canal, river, etc.; manufactures of laundry-goods, railway iron, stoves, nails, rail-cars, coaches, etc.; Troy University.

Syracuse..... 28,000.....Thriving commercial centre; principal salt manufactures in the United States; also manufactures of iron goods, flour, etc.

Utica 23,000.....Inland trade; manufactures of cotton woollen goods, steam-engines, railway cars, etc.; State lunatic asylum.

NEW JERSEY.

This State was first settled at the town of Bergen, by the Dutch, soon after their arrival in New York, in 1614. In 1627, a Swedish colony was founded near the shores of the Delaware, in the south-western part of the State. An amusing account of the quarrels of the Swedes with the Dutchmen of New Amsterdam may be found in Diedrick Knickerbocker's solemn history of the Amsterdam colonists. It acceded to the present Union in December 1787, being one of the original thirteen States. In the war of Independence, the famous battles of Trenton, Princeton, and Monmouth, at all of which Washington was present and victorious, occurred within its limits. Morristown was the winter camp of the American army in 1776-77. The area of the State is 8320 square miles. The population in 1860 was 672,085. State capital, Trenton.

The State presents many natural attractions to the traveller. Her sea-coast abounds in favourite bathing and sporting resorts, much visited by the citizens of New York and Philadelphia.

In the southern and central portions of this State, the country is flat and sandy; in the north are some ranges of picturesque hills, interspersed with charming lakes and ponds. The Nevisink Hills, rising nearly 400 feet on the Atlantic side, are usually the first and last land seen by ocean voyagers as they approach and leave New York. The soil, though naturally light and sandy, is very readily fertilized. The northern portion of the State is adapted both to tillage and pasturage, and the alluvial valleys are highly productive. Excellent grazing lands are found among the hills. The central region is the most thoroughly improved portion of the State, and forms a vast market-garden for New York city.

In the southern and central parts, there are extensive forests of pine, much of which is converted into charcoal. The apples and cider of New Jersey are famous; and in the southern section, peaches of excellent quality grow in great abundance. Musk-melons, water-melons, plums, apricots, and cherries, are the other fruits.

All the leading farm products of the Middle States are raised here in abundance. Rye is a more common crop than in any other part of the United States. In the sections having easy access to the great markets, garden vegetables and sweet potatoes are among the chief staples. The latter are produced more abundantly than elsewhere. Several counties also contain thousands of cranberry lands, which annually produce abundant crops of that fruit. Of all the Middle and Eastern States, none contain so small a proportion of uncultivated land as New Jersey.

The minerals consist of iron ore in large quantities, zinc and copper, marble, limestone, slate, and a fine sand, used for making glass. The zinc mines are among the richest in the United States: extensive beds of marl are also found.

The climate varies greatly. Towards the south, owing to the influence of the ocean, it is much milder than in the northern portion. Generally, it is remarkably healthy.

Manufactures are extensive; the chief being steam-engines and other machinery, iron castings and rolled iron, flour and meal, and ready-made clothing. The manufacture of jewellery and silver-ware, glass-ware, and India-rubber goods also are noted.

The direct foreign commerce of New Jersey is small, most of its merchandise, exported or imported, passing through New York and Philadelphia. Its coasting trade, however, is considerable: and its railway and canal transportation, for the accommodation of the neighbouring States, is extensive.

The chief towns are :—

	Population.	Characteristics.
Newark	72,000...	Extensive and varied manufactures, the most important being of jewellery, patent leather saddlery, and harness, hats, clothing, malleable iron, carriages, rubber goods, zinc paint, etc.
Jersey City ...	29,000...	City adjacent to and communicating by steam-ferries with New York; terminus of all the great railways connecting New York with the "South" and "West;" large manufactures of railway cars, locomotive engines, and other machinery, iron castings, etc.; also noted manufacture of black-lead crucibles; important ship-building; depôt of Cunard line of Liverpool steamers, and of steamers to Baltimore.
Paterson	20,000...	Passaic water-falls, 72 feet, affording immense water-power; extensive manufactures of cotton cloth, silk goods, locomotive engines, and other machinery; much visited by tourists.

	Population.	Characteristics.
Trenton	17,000...	State capital ; head of steamboat navigation on the Delaware River ; important railway and canal connections ; active trade ; large manufactures of iron merchandise, etc. ; State prison ; lunatic asylum.
Camden	14,000...	City adjacent to and communicating by steam-ferris with Philadelphia ; various flourishing manufactures ; important ship-building.

PENNSYLVANIA.

This State was settled at Philadelphia in 1681 by English Quakers, and was chartered February 28th of the same year. It was one of the original thirteen States, having adopted a State Constitution in 1776. Area, 47,000 square miles. Population, 2,906,115. State capital, Harrisburg.

Pennsylvania is, in point of population, the second State in the Union, and in all respects one of the most important and interesting. A very singular fact in her history—singular because it has no parallel in the annals of any other member of the American Union—is, that her Territory was settled without war or bloodshed by William Penn and his associates. The peaceful policy inaugurated by him was remarkably successful. Impressing the savage tribes by acts of justice, firmness, and good faith, he secured uninterrupted peace with the Indians till the opening of the Revolutionary war. The southern boundary of the State is the division between the late slave and free States, generally known as “Mason and Dixon’s line.”

The landscapes of Pennsylvania are extremely beautiful, and no State presents a greater variety of surface. Belts

of mountains extend over a breadth of 200 miles, which occasionally attain an elevation of over 2000 feet. Among these mountains are numerous fertile valleys. There are no lakes, but the charms of the many picturesque rivers make ample amends for the deficiency.

Pennsylvania is eminently an agricultural State. The soil is generally fertile, and most of the valleys contain rich alluvia. The richest and most productive regions are those of the great limestone and river valleys. Many of the mountains afford valuable pasture grounds, and are capable of cultivation to their very summits. There are large tracts of excellent land in the bituminous coal regions of the western portion of the State; but in the northern portion, the country is more bleak and rugged, and consequently not so productive. The greatest coal-fields and deposits in the United States are found here. A vast region of anthracite coal, extending 60 miles, with a breadth of 18 miles, and including an area of 1000 square miles, is most extensively mined. The product for 1865 was 9,488,396 tons. West of the Alleghanies is a still larger tract, embracing an area of 20,000 square miles. 9,000,000 acres of this area contain an immense bed of bituminous coal, the upper seam alone being estimated to contain 54,000,000,000 tons. It is estimated that Pennsylvania contains three times as much coal as Great Britain, and more than the whole of Europe.

In the yield of iron, this State is surpassed only by England and France. In almost every part deposits of iron ore are found in some form. The production of pig-iron for the last six months of 1865 was worth \$27,893,500 (£5,578,900). Copper exists extensively in many places; also zinc, plumbago, and lead. The whole State abounds in lime, marble, slate, and building stones. A large quantity of salt, amounting to over 1,000,000 bushels annually,

is obtained by boring through the coal formation of the western portion of the State.

Large reservoirs of petroleum are situated in Pennsylvania. It is estimated that the value of the oil taken from this region in 1865 was from twenty-five to thirty millions of dollars, and the weekly yield reaches very nearly 90,000 barrels, or about 4,500,000 per annum.

The coasting trade is extensive; and, though New York City (which in some respects doubtless affords commercial advantages superior to those of Philadelphia) has absorbed a large portion of the maritime commerce, the inland commerce of Pennsylvania is immense, being largely increased by the transit trade to the West.

The manufactures, owing to the mineral products, and the ample water-power afforded by the different rivers, have placed the State in an enviable position. Bar and rolled iron is made in large quantities; and, with the exception of Massachusetts, Pennsylvania makes a larger amount of woollen goods than any other State.

The chief cities are:—

Pop. in 1860.	Characteristics.
Philadelphia 563,000...	Chief manufacturing city in America, having the largest manufactures of cotton, woollen, and silk goods, boots and shoes, and leather, of any city on the continent, besides numerous other large manufactures—including the production of a large quantity of iron goods, and extensive publishing of books, etc.; great inland and maritime commerce; principal coal market in America, also great market for domestic cotton goods; seat of a United States navy-yard, the United States mint, Eastern (State) Penitentiary, Girard College (for orphans—the most elegant and costly collegiate edifice in the

Pop. in 1860.

Characteristics.

country), Pennsylvania University, American Academy of Natural Sciences—having the largest museum of natural history in America—and of many benevolent institutions.

Pittsburg	90,000...	Third manufacturing emporium in the United States, and chief seat of the iron manufactures; extensive building of steamboats, and smaller river and canal craft; large manufactures of glass, cotton goods, soap and candles, flour, malt liquors, lumber, etc.; important commerce by river, canal, and railway; chief market in the United States for bituminous coal; Western (State) Penitentiary.
Alleghany City...	29,000...	City adjoining Pittsburg, and identified with it in business and social interests.
Reading	23,000...	Inland trade; manufactures of cotton goods, rifles, combs, etc.
Lancaster	18,000...	Flourishing country trade; various manufactures; Franklin and Marshall College.
Harrisburg	13,000...	State capital; important railway centre; active inland trade; large iron works, and various other manufactories; State lunatic asylum.

DELAWARE

Was settled at Wilmington early in 1638, by Swedes and Finns. In 1655 it fell into the possession of the Dutch, and in 1664 passed under British rule. The colony was granted to William Penn in 1682, and continued under the government of Pennsylvania until the adoption of a Constitution, September 20, 1776; a new one was

formed June 12, 1792. It was one of the original thirteen States. Area, 2120 square miles. Population, 112,216. It is a grain and fruit-growing State, with some extensive manufactories. Next to Rhode Island, it is the smallest State in the Union, the greatest length and breadth being, respectively, only 96 and 37 miles. The landscape of the northern portion is agreeably varied with modest hills and pleasant vales. In the central and southern portions the country is level, ending in marsh and swamp lands. The whole State, except a small tract in the north, belongs to the Atlantic Plain. The belt of high land, which forms the watershed of the State, abounds in swamps. The shores of Delaware Bay are destitute of harbours. The soil in the north is good; but, toward the south, is sandy, and less productive. Deposits of shellmarl in some sections, are of great value for fertilizing purposes. It abounds with forests of hard and soft woods. The trade in blackberries, gathered in this State, is so great as to form an important item of railway traffic. Considerable attention is now being given to the long-neglected, though fertile, lands of the State; they are rapidly increasing in value, some having doubled, and even trebled, during the last few years, and emigrants from the more northern States are rapidly setting upon them. This State is extremely healthy; the climate, being mild and uniform, is especially adapted to persons afflicted with pulmonary disease.

In the northern part of the State grazing receives much attention, and excellent butter is produced. Peaches of the finest quality are raised in abundance. Manufactories are extensively pursued; the most important are flour, cotton goods, iron castings, and machinery.

The maritime commerce of the State is confined chiefly to the coasting-trade, the exchange for foreign goods being

effected almost solely through the great shipping ports of the neighbouring States.

The chief city is :—

	Population.	Characteristics.
Wilmington	..... 22,000.....	Large manufactures, that of gunpowder being noted throughout the United States ; important coasting trade ; St. Mary's College, and other educational institutions.

MARYLAND..

Maryland was settled, in 1634, at St. Mary's. It was one of the original thirteen States, and formed a Constitution, August 14th, 1776. Area, 11,124 square miles. Population, 687,049. Maryland is the most southern of the group distinguished as the Middle States, and is sometimes classed with the southern group.

A portion of the State is covered by the waters of the Chesapeake Bay. The country upon the eastern and western shores of the bay is level and sandy. The long narrow strip which extends westward is crossed by several ridges of the Alleghanies, which, with their intervening valleys, afford charming landscapes. The hill-region of Maryland abounds in minerals. The coal deposits, though not great in extent, are extremely productive. In the vicinity of Cumberland are extensive mines of coal and iron. The Cumberland coal is semi-bituminous, and is in demand for the use of steam-vessels. Copper is obtained in the hilly country east of the Blue Ridge.

Besides the culture of the grains, fruits, vegetables, and other products of the Northern States, Maryland grows

large quantities of tobacco, and ranks in the production of this staple as third in the Union. It is cultivated chiefly in the level country, between Chesapeake Bay and Potomac.

The principal manufactures are flour and meal, machinery, and other iron merchandise, cotton goods, and clothing.

Maryland ranks among the chief commercial States of the Union. Much of the surplus produce of Ohio, Kentucky, Tennessee, and Virginia, finds a market through Baltimore, its principal shipping-port; and a considerable share of the foreign goods consumed in these and more Southern States, are received through the same emporium. The amount of transportation from the West over the Baltimore and Ohio Railway is probably greater than by any other railway in the United States.

Chief Towns.	Population.	Characteristics.
Baltimore	212,000.....	State capital; one of the chief commercial emporiums of the Union; famous market for flour, grain, tobacco, coal, and oysters; extensive and varied manufactures; elegant monuments (the most imposing being Washington and Battle monuments), in reference to which it is often called the "Monumental City;" collegiate institutions; State penitentiary.
Cumberland	8000.....	Principal depôt of a large coal and iron mining district; important railway centre; western terminus of the Chesapeake and Ohio Canal; large inland trade; various manufactures.
Frederick City	8000.....	Centre of a rich agricultural and mineral region; various manufactures; flourishing educational institutions.

DISTRICT OF COLUMBIA.

This District was originally 10 miles square, or 100 square miles. It was ceded to the general government by the States of Virginia and Maryland as the seat of Government of the United States. In 1846, the portion on the Virginia side of the Potômac was re-ceded back to that State. The present area is about 60 square miles. Population, 75,080. This district, unlike the States of the Union, is under the direct jurisdiction of Congress, having only a limited authority in the regulation of its own internal affairs. It was named Columbia in honour of Columbus, and with the same reference, the term Columbia is sometimes used to designate the United States. The entire District is identical with the county of Washington.

The surface is undulating, with hills sufficiently high to command extensive views, and give variety to the scene. The soil is light, and moderately fertile. The climate moist and warm, especially in the lowlands.

The District only contains two cities, which are—

Pop. in 1860.	Characteristics.
Washington ... 61,400...	Capital of the United States; distinguished for its elegant public buildings; Washington monument; principal United States navy-yard; Columbian college; American geographers often compute longitude from Washington.
Georgetown ... 12,000...	Head of navigation on the Potomac; literary and polite society; manufacture of flour; line of packets.

THE SOUTHERN STATES.

VIRGINIA, WEST VIRGINIA, NORTH CAROLINA, SOUTH CAROLINA, GEORGIA, FLORIDA, LOUISIANA, MISSISSIPPI, ALABAMA, AND TEXAS.

The extensive alluvial plain which borders the Atlantic Ocean and Gulf of Mexico occupies nearly one-half the surface of the Southern States. The coasts of this region are indented with numerous inlets and bays, and lined with a large number of islands and reefs, which render navigation dangerous.

The soil of the lowlands near the Atlantic coast, and along the banks of the rivers, is rich in decomposed vegetable matter, and is highly fruitful, but along the Gulf of Mexico it is generally sterile. The adjacent uplands reaching thence to the mountains are generally of moderate productiveness, and many of the valleys contain rich alluvia. In the great valley of the Appalachians, which is formed chiefly upon limestones and sandstones, the soils are mostly of a superior quality. The high plains that slope toward the Alleghanies, underlaid almost throughout with coal-bearing strata, contain some of the best farming districts in the United States.

The inhabitants of the Southern States are almost wholly devoted to agricultural pursuits. Some manufacturing, however exist, though principally confined to the northern portion. Throughout this region extensive pine forests yield pitch, tar, and turpentine in abundance.

The commerce of these States consists chiefly in the export of cotton, and other great agricultural staples. During the decade preceding the census of 1860, the cotton shipped to foreign markets was more than two-fifths, in

value, of the entire domestic exports of the United States, amounting for the year 1860 to \$191,000,000.

The Southerners are distinguished for their ardent temperament and their jealousy in the maintenance of individual rights. They are chivalrous and courteous. Accustomed to the control of a servile population, they are prone to command. In general they are frank, social, and noted for their hospitality; and the better classes are polished and refined in their manners.

The sparseness of the white population in most parts of the South is unfavourable to the support of free public schools. Hence, although many are established in every State, they are less numerously attended, and generally less prosperous, than in other sections of the Union. In facilities for education of a high order, however, the Southern States are not inferior to any portion of the Union. Schools and academies, amply endowed and largely attended, are numerous, more especially in the fertile cotton-growing regions. Many of the colleges and universities of the South are unsurpassed. Among the most noted institutions of this character may be mentioned Virginia University, South Carolina College, Emory College in Georgia, Lebanon University in Tennessee, Centenary College in Louisiana, and the University of Louisiana at New Orleans.

Some few Indians still remain in the Southern States, but the great bulk of the tribes have retired west of the Mississippi.

VIRGINIA.

The State of Virginia was first settled at Jamestown in 1607, by the English. It was one of the original thirteen States, ratifying and framing a State constitution, July 5, 1776, which was amended Jan. 15, 1830. Area, 61,352 square miles. Population, 1,596,318. State capital, Richmond.

Virginia may be divided into four sections—1. The coast section, extending from the seaboard to the “Ridge.” 2. The Piedmont section, reaching from the former to the base of the Blue Ridge, from whence its name the “foot of the mountain.” 3. The valley section, between the same mountains and the Alleghanies Proper; and, 4. The trans-Alleghany section, now the State of West Virginia. The scenery of Virginia is remarkable for its bold and picturesque character. It is also celebrated for its mineral springs, many of which are the favourite resorts of invalids. The estuaries and bays of the Chesapeake afford superior commercial facilities.

The soil is exceedingly diversified in its character, being sandy upon the coasts, but highly fertile on the banks of the rivers. It amply repays cultivation, especially in the highlands, and on the plains west of the Alleghany mountains. The Shenandoah Valley is the richest agricultural portion of the State; the river of the same name passes through it, and affords extensive water-power for manufacturing purposes. It was also the scene of some of the most important and thrilling events of the late war.

The climate is varied in its character. The winters are mild. The summers are liable to be visited by long periods of drought. Virginia is the foremost State in the Union in the cultivation of tobacco, the greater part of which is

grown in the Piedmont section. Immense grain crops are also produced, and flax is also an important product of the highlands.

The coal and iron deposits, although more extensive, are less worked than those of Pennsylvania. Bituminous coal, moreover, is found in the southern part of the Great Valley. Petroleum is procured from numerous wells west of the mountains. Gold, lead, and copper ore, are mined in the Piedmont country. Lead, plumbago, porcelain clay, marble, and soapstone, are also found in various localities. Virginia stands at the head of the Southern States in the total value of its manufactures. Flour and meal, cured tobacco, machinery, and other iron merchandise, sawed and planed timber, and cotton and woollen goods are the principal manufactured products.

The oyster fisheries of the State are important, large supplies of oysters being transplanted from the shores of Chesapeake Bay to the coasts of the Middle and Eastern States.

The maritime commerce is confined to a coasting trade, Norfolk being the only port possessed of extensive foreign commerce.

The chief cities of Virginia are :—

	Pop. in 1860.	Characteristics.
Richmond	38,000.....	State capital; important inland and maritime commerce; largest manufactures of tobacco in the United States, also extensive manufactures of iron goods, flour, etc.; flourishing literary institutions; State penitentiary.
Norfolk 15,611 and Portsmouth. 9,502 }	25,000.....	City and adjacent town connected by steam-ferries, and having a magnificent harbour;

Pop. in 1860.

Characteristics.

		one of the principal commercial ports of the Southern States; extensive shipment of oysters, garden vegetables, poultry, and other farm produce; important navy yard located at Gosport.
Petersburg	18,000,.....	Extensive trade in tobacco and flour; maritime commerce; numerous flourishing manufactures.
Wheel- ing	{ city proper 14,000 } { the metropolis... 17,000 } ...	Important railway centre; rich coal-mines in the hills adjoining the city, whence it derives remarkably cheap supplies of fuel, and thus enjoys superior facilities for steam manufactures; numerous flour-mills; production of iron goods, glass, silk, etc.; river commerce and inland trade; great wire suspension bridge, nearly a fifth of a mile long (1010 feet), across the Ohio River.
Staunton	14,000,.....	Chief town in the Valley of Virginia, and market of a rich grain-growing region; thriving manufactures; asylums for the insane and for the deaf, dumb, and blind.

WEST VIRGINIA.

This new State, detached from the old State of Virginia by popular will, was admitted into the Union by Act of Congress, approved December 31, 1862, "upon the condition that certain changes should be duly made in the

proposed constitution for that State," which changes being approved by the popular vote, the President of the United States, by proclamation, dated the 20th April, 1863, in pursuance of the Act of Congress aforesaid, declared and proclaimed that the said Act should take effect and be in force on the 20th day of June, 1863.

The new State comprises forty-eight counties, lying west of the Alleghany mountains; having an estimated area of 24,000 square miles, and a population, according to the census of 1860, of 350,599.

Nearly the whole of the State is underlaid with extensive coal deposits, among the most noted of which may be mentioned the "Falling Rock Cannel Coal Estate," on Elk River, owned by J. B. Weir, Esq., of New York City. This is known as one of the most interesting and valuable mineral deposits in the United States. In various localities also are found extensive deposits of gypsum and iron ore, and in some parts rock salt. The amount of salt made from the waters of brine springs in the valleys of the Great and Little Kanawha Rivers and their tributaries, is more than in any other State except New York. It is also rich in petroleum, and has a large amount of fertile and arable lands lying on the east banks of the Ohio River, and in the valleys of the Alleghany mountains.

NORTH CAROLINA.

This State was settled in 1650, by the English, acceded to the Union November 21st, 1789. Area, 50,700 square miles. Population, 992,622. State capital, Raleigh.

The State is almost wholly destitute of picturesque

scenery, though there are here and there many points of interest and even of beauty.

Of all the Atlantic seaboard, the coast of North Carolina is the most perilous to navigators. The well-known Capes Hatteras, Look Out, and Fear, are especially dreaded. While the innumerable bays, shoals, and islands are thus cautiously avoided by the passing mariners, they are eagerly sought by the fisherman and the sportsman. Immense quantities of shad and herring, and other fish, are taken here, and the estuaries of the rivers and the bays are among the favourite resorts of wild fowl of every species.

North Carolina is divided into four sections: the marshy plains bordering the coast, and extending 60 or 80 miles inland; the pine barrens, of about 40 miles in breadth; and the hilly country, extending to the foot of the Blue Ridge, and the mountainous region beyond, the most elevated and rugged expanse east of the Mississippi. Many of the summits of the mountains rise to a height of 6000 feet, while the loftiest reaches 6700 feet. The extraordinary height of this region gives to the rivers of the east a rapid slope to the Atlantic plain. Hence they afford great water-power. The extensive level region, however, bordering on the coast, is very marshy. On the whole, the soil of the valleys and of the coast regions is productive. The pine barrens, as their name indicates, are sterile, though immense quantities of turpentine are obtained from the heavy pine thickets, which also yield large supplies of timber.

North Carolina is rich in minerals; gold, copper, iron, and coal being the principal. Till the discovery of gold in California, this State yielded the largest amount of gold. The copper lands of the State, says Professor Jackson, are unparalleled in richness. Coal, both anthracite and bituminous, and iron ore, exist throughout the mountain districts.

Limestone and marl are abundant ; and silver, lead, salt, and gypsum have been found.

The climate in the low regions is unhealthy ; in the middle and central parts it is more temperate and healthy.

The State is distinguished for the variety of its agricultural products, each of its chief physical sections being adapted to a peculiar class of crops. The characteristic staples of the lowlands are sweet potatoes, cotton, and rice ; of the hilly country, tobacco ; of the highlands, grazing products, and the hardier cereals. Indian corn is extensively cultivated in all parts, particularly in the hilly country ; yet sweet potatoes and tobacco are the crops for which this State is most noted. Apples, pears, peaches, cherries, grapes, and strawberries flourish.

The manufacture of prepared naval stores is very extensive, perhaps more so than in any part of the world. Flour and meal also form important articles of produce, and there are now extensive iron works established.

Its maritime commerce is confined chiefly to the coasting trade, naval stores being the only export of any importance.

The principal towns are :—

	Pop. in 1860.	Characteristics.
Wilmington.....	9,500.....	Important maritime and inland commerce ; extensive manufactures of spirits of turpentine, sawed and planed lumber, etc.
Newbern.....	5,500.....	Thriving commerce ; active trade in naval stores, grain, and lumber.
Fayetteville.....	5,500.....	Head of steam navigation on Cape Fear River ; important trade and large exportation of naval stores ; various manufactures ; United States Arsenal.
Raleigh	5,000? ...	State capital and seat of a flourishing trade ; elegant State house ; State lunatic

	Pop. in 1860.	Characteristics.
		asylum ; North Carolina Institution for the Deaf and Dumb.
Charlotte.....	—— ? ...	Centre of the gold mining region of North Carolina ; seat of a branch of the United States mint ; important trade in cotton and bread-stuffs ; manufacture of cotton and woollen goods.

SOUTH CAROLINA.

South Carolina was first settled at Port Royal, in 1670, by the English, and continued part of North Carolina until they were separated in 1729. It was one of the original thirteen States. It framed a State Constitution March 26th, 1776. Area, 34,000 square miles. Population, 703,708. State capital, Charleston.

Upon its settlement, in 1670, John Locke, the famous philosopher, framed a constitution for the young colony, after the pattern of that of Plato's Model Republic. Later (1690) the population received a considerable accession from the influx of French Huguenots, driven from their own land by the Revocation of the Edict of Nantes.

The coast region for 100 miles from the ocean is covered with forests of pitch pine, intersected with swampy tracts, and permeated with sluggish streams. In this respect, it resembles the whole southern coast region. Beyond this, and parallel to it, is a belt of territory, called the "Middle Country," consisting of low sand hills, resembling the waves of an agitated sea. This tract occasionally presents an oasis of verdure, or a plantation of maize, but on the whole offers little attraction to the agriculturalist. Farther in the interior, the surface exhibits a beautiful

alternation of hill and dale interspersed with extensive forest, and watered by pleasant streams.

The southern part of the coast is skirted by a range of islands, separated from the mainland by narrow channels, which afford an inland steamboat navigation from Charleston to Savannah. These islands, like the neighbouring country, are low and flat, but are covered with forests of live oak, pine, and palmettoes, and they yield the black seed or sea island cotton. Before the cultivation of cotton was commenced, many of them were the haunts of alligators, and the thick woods and rank weeds rendered them impenetrable to man. At present they are under cultivation, and well inhabited, and as the voyager glides by their shores, he is enchanted by the prospect of their lively verdure, interspersed by thick clumps of palmettoes and flowering groves of orange-trees.

The mineral resources of South Carolina are by no means insignificant. The primitive region of the western part of the State belongs to the auriferous belt of the Atlantic Slope, and for a number of years past the production of gold has been quite encouraging; in some instances the metal is found in large nuggets, but the largest quantities have been obtained from washings. Iron is also abundant in this region, and in quality the ore is not surpassed. Coal is not found within the State, and the rocks which include the coal formation between the clay-slate and the new red sandstone are entirely wanting.

The soil of the hilly country, being derived, to a considerable extent, from limestone and clay-slate, is generally productive; that of the lowland valleys and swampy tracts is exceedingly fertile. The "middle country" and pine lands, although sterile by nature, contain beds of marl and other fertilizing earths, which amply suffice for their redemption.

South Carolina, like North Carolina, is distinguished for the variety of its crops. The chief staples, mentioned in the order of their importance, are cotton, Indian corn, and rice; the latter is cultivated principally in the marshy lowlands, which are flooded or drained, according to the requirements of the crop. Nearly two-thirds of the rice produced in the United States is grown here. The long staple cotton is extensively cultivated upon the sea islands. Considerable machinery is built here. The amount of its exports to foreign countries is large, but foreign imports compared with the former, are extremely small. The coastwise and inland commerce is large.

The chief towns and cities are:—

	Pop. in 1860.	Characteristics.
Charleston.....	41,000...	Second of the Atlantic ports of the Southern States, ranking next in commercial importance to Baltimore; principal rice market, and third cotton market in the Union; Charleston College; South Carolina Medical College.
Columbia	8,000...	State capital; head of steamboat navigation on the Congaree River; flourishing inland trade; South Carolina College and other important literary institutions; State military college; State lunatic asylum.
Georgetown ...	2,500...	Foreign and coastwise commerce; various manufactures.
Hamburg	2,000...	Highly important cotton market, adjacent to and connected with Augusta, Georgia, by a bridge across the Savannah River.

GEORGIA.

Georgia was settled the latest of the original thirteen States of the Union. She derived her name with her charter from George II., June 9, 1732. Her first colony was planted by General Oglethorp, on the spot where the city of Savannah now stands, in 1773.

Acceded to the Union, January 2, 1788. Area, 58,000 square miles. Population in 1860, 1,057,286. Capital, Milledgeville. The State possesses unrivalled sources of prosperity and wealth; and is distinguished by a spirit of activity, enterprise, and progress which markedly distinguishes it from the other Southern States; hence it is called the Empire State of the South.

The sea-coast, extending only about 80 miles, is very similar in character to that of the Carolinas, being lined with fertile islands, cut off from the mainland by narrow lagoons or sounds. The famous sea-island cotton is grown here; and wild fowl are abundant in all varieties. Upon the main, rice plantations flourish, with all the semi-tropical fruits of the ocean districts of South Carolina. The chief agricultural staples are cotton, Indian corn, and sweet potatoes. The latter are raised here more abundantly than in any other State. Rice is extensively cultivated in the lowlands.

The gold mines of Georgia, in the hilly country near the Blue Ridge, are the richest east of the Mississippi Valley. These mines have yielded considerable supplies for coinage, a branch mint being located at Dahlonega.

Flour and meal, cotton goods, and sawed and planed timber are manufactured extensively. The cotton manu-

factures are more than double the production of any other of the Southern States.

An important coastwise and foreign commerce is carried on, although the direct importations from foreign countries are small. Rice is among the chief exports.

The wealth of the State has been largely increased during the last ten years by the opening of extensive lines of railway.

The principal towns of Georgia are as follows:—

	Pop. in 1860.	Characteristics.
Savannah ...	22,000...	Third in importance of the Atlantic ports of the Southern States; extensive shipments of cotton, rice, and timber.
Augusta.....	12,000...	Head of steamboat navigation on the Savannah River; commercial centre of a fertile cotton region; fine flour-mills, cotton factories, and machine shops; Georgia Medical College.
Columbus...	10,000...	Head of navigation on the Chattahoochee River; extensive trade in cotton manufactures; manufactures of cotton and woollen goods, iron castings, machinery, etc.
Atlanta	10,000...	Important railway centre; great provision mart; annual State fairs; large iron works; Atlanta Medical College.
Macon.....	8,000...	Head of steamboat navigation on the Ocmulgee River; cotton trade; manufactures of iron castings, machinery, and cotton goods; Wesleyan Female College.

FLORIDA.

Florida, the most southerly of the Atlantic States, consists of a long narrow strip on the northern shore of the Gulf of Mexico ; and is popularly known as the Peninsular State. It was settled at St. Augustine, in 1565, by Spaniards ; and was formed from part of the Territory ceded by Spain to the United States by treaty of February 22, 1819. An Act to authorize the President to establish a temporary government was passed March 3, 1819 ; articles of cession of East Florida were framed July 10, and of West Florida July 17, 1821, and it was then taken possession of by General Jackson as Governor. An Act for the establishment of a Territorial Government was passed March 30, 1822 ; and by Act of March 3, 1823, East and West Florida were constituted one Territory. After several ineffectual attempts to organize it into two Territories, or into a State and Territory, an Act for its admission into the Union was passed March 3, 1845. Area, 59,268 square miles. Population, 140,425. State capital, Tallahassee.

The southern portion of Florida is an extensive marsh, and until the construction of the Fernandina railway, there was no overland passage from one shore to the other, during the rainy season, between June and October.

Florida has a sea-coast of more than 1000 miles in length, but so much of it is rendered inaccessible by soundings, that it has few good harbours. In some places there are but six or seven feet of water six miles from shore. In the interior of Florida there is a chain of lakes, nearly twenty miles in length, of which the extreme southern link is Lake Okechobee ; many of these waters are extremely picturesque in their own unique beauty of wild and rank tropical vegetation.

The State has been but little settled except in the north. The soil is generally sandy, mixed in some places with clay. The climate partakes largely of that pertaining to the torrid zone, to which it approaches within a degree and a half.

The agricultural staples, in general, are such as are naturally suited to a tropical climate. Sea-island cotton grows even in the middle of the peninsula; and the product of this staple is more abundant than in any other State. Numerous tropical fruits, including lemons, guavas, bananas, and pine-apples, flourish here, especially in the south. Herds of cattle, requiring no care from their owners, are pastured throughout the year upon the grassy savannas. The fisheries of shad, etc., along the coast, are valuable. Turtles are taken in large numbers upon the quays.

The maritime commerce is considerable. Among the exports are large supplies of live-oak timber (much valued for ship-building), and of sponges, which grow upon the coral reefs.

The principal towns of Florida are :—

Pop. in 1860.	Characteristics.
Pensacola.....5,000...	Flourishing maritime commerce; one of the best harbours on the gulf; strong fortifications; United States navy yard.
Key West.....3,000...	United States naval and military station; capacious and strongly fortified harbour; calling port for California steamers; extensive business in recovering shipwrecked property; large manufactures of salt; sponge gathering; streets shaded by cocoa-nut palms; delightful climate.
Appalachicola...2,500...	Chief commercial port of the State.
St Augustine....5,000...	Oldest European town in North America.

LOUISIANA.

Louisiana was settled at Ibberville, in 1699, and was finally purchased from France by the United States in 1803, for \$11,500,000, and the further payment of certain claims of American citizens against the Government of that country. It was made into two Territories by Act of Congress March 26th, 1804; one called the Territory of Orleans, the other the District of Louisiana, afterwards changed to Missouri. Congress, March 2nd, 1806, authorized the inhabitants of Orleans Territory to form a State Constitution and Government when their population should amount to 60,000. A Constitution was adopted January 22nd, 1812; and the State admitted into the Union April 8th of the same year, under the name of Louisiana. Its area is 41,346 square miles. Population, 708,002. State capital, Baton Rouge.

In no part of the State is a greater elevation attained than 200 feet above the level of the Gulf of Mexico, and much of the southern region is so low that it becomes flooded at high water, and marshes extend from the coast far into the interior. Low prairie lands exist in the central parts of the State, and in the extreme north-west is a marshy tract of 50 miles in length and 6 in breadth, full of small lakes, made by the interlacings of the arms of Red River. It is estimated that an area of between 8000 and 9000 square miles, lying respectively upon the Mississippi and Red Rivers, is subject to inundations.

About three-fifths of the area of the State is alluvial and diluvial; the rest is occupied by the tertiary formation, and contains coal, and iron, ochre, salt, gypsum, and marl. Large quartz crystals have been found, and quantities of jasper, agates, cornelians, sardonyx, onyx, feldspar, crystal-

lized gypsum, alumina, chalcedony, lava, meteoric stones, and fossils have been found among the freestone hills.

The soil, except of the pine-lands and portions of the prairies, is highly productive. The principal plantations are in the bottom-lands adjoining the Red and Mississippi rivers. The inundations which occasionally occur through the giving way of the embankment, or "levee," cause great destruction of property, and flood large districts. The alluvia which is deposited by these floods, sometimes to the depth of twelve inches, greatly enriches the land, and, when impoverished, compensates for the loss of one crop.

In the long hot summers, the exhalations from the marshes render a great part of Louisiana unhealthy; and yellow fever often prevails, especially in New Orleans.

The great staples are cotton and sugar-cane, but the region suited to the growth of the latter extends little farther north than the south-western boundary of Mississippi. The manufacture of sugar and molasses is an important employment on many of the plantations, Louisiana supplying about nine-tenths of the whole amount produced in the United States. Boots and shoes are made here more extensively than in any Southern State. Iron casting is also very largely carried on.

Louisiana is the natural outlet of a large part of the commerce of the Mississippi valley, including a large share of the cotton crop, and for this reason, it ranks as the first State in the Union in the value of its exports, and the third in the value of its imports.

The chief cities and towns are—

	Pop. in 1860.	Characteristics.
New Orleans	{ city proper, 169,000 } { metropolis, 175,000 }	...The "Crescent City," so called from its shape around a bend in the Mississippi; great maritime and

Pop. in 1860.

Characteristics.

inland commerce, the exports far exceeding, in value, those of any other city of the United States, except New York; chief cotton market of the world; principal market of the United States for sugar, molasses, and tobacco, and largest shipping port for bacon, salted pork, and lard; magnificent custom-house (the largest edifice in the Union); branch of the United States Mint; University of Louisiana.

Algiers	6,000.....	Integral part of the metropolis of New Orleans, communicating with the city proper by steam-ferry; ship-building and other manufactures.
Shreveport	6,000.....	Commercial dépôt of northern and eastern Texas and western Arkansas; large trade in cotton; important lake and river navigation.
Baton Rouge.....	5,000.....	State capital; thriving trade; numerous literary institutions; asylum for the deaf and dumb and for the blind; State penitentiary; United States arsenal.
Jefferson	5,000.....	Dépôt of a rich agricultural region; extensive trade in produce, meats, etc., for the supply of the New Orleans market.

MISSISSIPPI.

Mississippi was first visited by De Soto, the Spanish discoverer, about 1541. The enmity of the Indians, however, and other obstacles, prevented any immediate occupation of the country by Europeans. It was not till 1728 that a permanent settlement was made by the French. The country fell into the possession of the British crown upon the conclusion of the Peace of Paris in 1763. In 1798 the colony was organized as a Territory, Alabama forming a portion thereof. It was admitted into the Union in 1817. Area, 47,156 square miles. Population, 791,305. State capital, Jackson.

One seventh of the area of Mississippi consists of swamps and marshy tracts. There is a stretch of this description between the Mississippi and Yazoo and Tallahatchie rivers, covering an area of nearly 7000 square miles, and varying in width from ten to one hundred miles. The lower portions of the State are subject to inundation, and dykes or levees are built along the river banks, to restrain the unruly floods of the Mississippi. Sometimes, however, a breach, or "crevasse," occurs, when the country is inundated for many miles, the water often remaining for weeks. Where the country is not thus occupied by swampy or marshy stretches, it sweeps away in broad tablelands, shaped into grand terraces, or steps descending from the eastward to the waters of the great river. The steps are formed by two ranges of bluffs, which sometimes extend to the river shores, and halt abruptly in perpendicular precipices of fifty, and even a hundred feet high. These bluffs are features of great and novel attraction to the voyager on the Mississippi river. The south-eastern portion

of the State is covered principally with pine barrens. The north-eastern portion consists chiefly of extensive prairies of great fertility, and are unsurpassed in their adaptability for cotton-growing. The winters here, and in the neighbouring State of Louisiana, have a temperature a few degrees lower than that of the same latitudes near the Atlantic. The fig and the orange grow well in the lower part of the State, and the apple flourishes in the higher hilly regions. Cotton is the great staple of Mississippi, the State being the third in the Union in this product. Besides cotton, the soil yields great supplies of Indian corn, and all species of grain and grasses, as well as live stock of very considerable value. Mississippi has no very extensive mineral products—gold, coal, and marble have been found, but in no important quantities.

The manufactures consist chiefly of sawed and planed timber, and of machinery; the latter has increased considerably within a few years. The products of this State, however, with the exception of what are derived from its plantations and forests, are comparatively of little value.

The commerce of Mississippi, owing to the want of a good harbour on the Gulf, is trifling; but an important trade is maintained by steamboats on the Mississippi, and the smaller rivers.

The chief towns are :—

	Pop. in 1860.	Characteristics.
Jackson	3,500.....	State capital; contains State penitentiary, lunatic asylum, university.
Natchez	14,000.....	"City of the Bluffs," situated partly on a cliff 200 feet above the river; extensive trade in cotton; various manufactures; beautiful gardens and orange groves; numerous educational institutions.

	Pop. in 1860.	Characteristics.
Vicksburg	5,000.....	Important railway centre; active river commerce; great trade in cotton; chief commercial port of the State.
Columbus	3,500.....	Healthful location; depot of a large cotton trade; centre of a highly fertile cotton region; river commerce.

ALABAMA.

Alabama was settled originally by the French at Mobile in 1713, and was admitted into the Union, August 2, 1819. Area, 50,722 square miles. Population in 1860, 964,201. Montgomery is the State capital.

The country gradually declines from the north, which reaches the foot of the Alleghany Mountains, to the Gulf of Mexico, where it is level for fifty or sixty miles from the coast. In the north, where hills are the prevailing feature, the soil is but moderately fertile; though, in the intervening valleys, the fertility can scarcely be excelled. It is the region of the cereals, and a fine grazing country. The central portions, less elevated and undulating, are well watered, and in the river bottoms is extremely rich and productive. The extensive and fertile prairies, extending across the central portion of the State, are unsurpassed in their capability for growing cotton. The valley of the Alabama River is one of the most fertile regions in the Union. The southern portion of the State consists principally of pine-barrens. Where capable of cultivation, the soil is rich. The growth in this region is of a tropical character.

The climate is moderate in the north, and the rivers never freeze in winter. In the south, the heat in summer is very great, though tempered by the breezes from the Gulf of Mexico.

In the amount of its cotton crop, Alabama exceeds every other State in the Union; and in its crop of maize, is excelled amongst the Southern States by Virginia only. The sugar-cane has been found to succeed in the extreme southern strip, between Florida and Mississippi. Rice grows well on the alluvial lands near the Gulf.

The mineral resources of Alabama are very great. The whole central region is underlaid with vast beds of iron ore, or occupied by coal-measures of great thickness and extent; the coal found here being of highly bituminous character. Besides coal and iron, Alabama yields lead ore, manganese, several descriptions of ochres, limestone, and marbles; and, in the north-eastern section, gold in considerable quantities has been found.

The manufacture of sawed and planed timber, cotton goods, and machinery (for the most part cotton-gins) are relatively important. Machine manufactures are much more extensive than in any other of the Gulf States. Alabama has considerable foreign and internal commerce. Her ports being open to the sea through Mobile Bay, give an outlet not only to her own productions, but also to some of those of the neighbouring States.

In the value of its exports to foreign countries, consisting mostly of cotton, it is the fourth State in the Union; its direct foreign imports, however, are trifling.

The chief cities and towns are:—

Pop. in 1860.	Characteristics.
Montgomery ... 16,000...	State capital; centre of a highly fertile cotton region; extensive river commerce and inland trade; many costly private residences.

	Pop. in 1860.	Characteristics.
Mobile	27,000...	Chief commercial port, next to New Orleans, on the Gulf of Mexico, and second cotton market in America; excellent public schools; benevolent institutions; magnificent private residences.
Selma.....	5,000...	Centre of a highly fertile cotton region; large inland trade and river commerce; iron manufactures.
Tuscaloosa	4,000...	Head of steamboat navigation on the Black Warrior River; inland trade; manufactures of iron castings and cotton goods; University of Alabama, and other literary institutions; State lunatic asylum.
Huntsville.....	4,000...	Inland trade; canal communication with the Tennessee River; many elegant and costly private residences; excellent public schools and colleges.

TEXAS.

Much of the early history of the State of Texas is marked by turbulence and war. In the year 1821 the inducements held out to settlers in this region by the Government of Mexico; to whom the territory at that period belonged, caused a great flow of emigration thither from the United States. This new population had grown so great by the year 1832, as to absorb and destroy the original feeble spirit under Mexican rule. Admission being demanded for the State as an independent member of the Mexican confederacy, and refused, Texas declared itself wholly free of all allegiance whatsoever to that Govern-

ment. The result was a war with Mexico, which was determined in favour of the Texans.

Texas continued to be an independent republic until her admission, in 1846, as a member of the Union. It is by far the largest State, being more than five times as large as New York. Area, 274,356 square miles. Population in 1860, 604,215. State capital, Austin. At the period of the last census scarcely more than one-seventh of Texas was settled, the eastern portion being that chiefly under cultivation.

This great State presents every variety of surface—mountain, plain, hill, and desert. It may be divided into three physical sections. 1. The level, which occupies the entire coast, extending from 30 to 60 miles into the interior. 2. The undulating, embracing the whole interior and north, reaching westward to the mountain tract, and consisting of high rolling verdant prairies, narrow wooded bottoms, beautiful islands of timber. 3. The mountainous, with table-lands, well watered and fertile.

The general character of the soil is that of great fertility. Cotton, the great staple, grows well in almost every part of the State, and that grown near the Gulf is considered equal to the famous sea-island cotton. In the undulating portion the cereals flourish, and the level country is well adapted to the production of sugar. In some sections, two crops of Indian corn are grown yearly. Cayenne pepper is largely produced. The grape, mulberry, and delicious vanilla are indigenous. Fruits flourish, especially the peach. Flowers are in abundance; and Texas offers great attractions to the botanist, or lover of the beauties of nature.

Flour and meal are more extensively produced here than in any other of the Gulf States. The manufactures are of little importance.

Middle Texas is famous for its cattle, great numbers being pastured throughout the year upon the verdant prairies. The vast herds of buffaloes and wild horses, which roam upon the western plains, and the numerous deer, bears, and wolves, found in all parts of the wilderness, are captured in large numbers, affording a rich reward to the hunter. The wild horses, known as mustangs, are commonly taken with the lasso.

The climate is free from the extremes of both torrid and temperate zones. Ice is sometimes seen in the southern portion; and the heats of summer are considerably mitigated by the refreshing breezes from the Gulf of Mexico.

Texas abounds with minerals. The silver mine of Said Saled is among the richest in the world, and under the dominion of Spain afforded considerable revenue to the crown. Gold has been found on the Atoyac and other streams, especially towards the western hill country; and silver also on the Bedais. Iron ore pervades the greater portion of the country. Lead, copper, alum, etc., are found in several parts, and bituminous coal on the Trinity and Upper Brazos. Salt is exceedingly abundant, and large quantities are annually taken from a famous salt lake near the Rio Grande. Salt springs and lagoons abound near the Trinity, and a branch of the Brazos has its waters highly impregnated. Soda and potash are found near the salt lagoons in dry seasons. Lime can be plentifully furnished from limestone existing in the undulating and northern sections; in the level districts oyster-shell lime can be substituted. Asphaltum is sometimes found on the coast. Agate, chalcedony, jasper, and some singular petrifications, are found near the mountains. The remains of whole forests are seen on the Trinity and Brazos rivers, entirely petrified. Extensive quarries of red

and white sandstone, or freestone, abound throughout the country. At Austin there is a quarry of white stone similar to that of the Paris basin; it is soft and easily worked with the knife, and may be reduced to any form; but on exposure to the atmosphere it becomes a perfect freestone, and is as hard and compact as granite and marble. The same kind of stone is found on the Trinity, and in the vicinity of San Antonio de Bexar.

The maritime commerce of Texas consists chiefly in its coasting trade, particularly with New Orleans. The inland trade is chiefly promoted by many steamboats plying upon the rivers; and a small overland commerce is maintained with Northern Mexico.

No part of the extensive coast of the Gulf of Mexico presents a greater number of commanding harbours, bays, and inlets, than that of Texas. The interior, intersected by numerous magnificent and navigable streams, in close vicinity to the western tributaries of the Mississippi, and holding easy communication with the great "Father of waters," furnishes a commercial position very desirable and seldom surpassed.

The chief towns are :—

Pop. in 1880.

Characteristics.

San Antonio..... 8,000.....	Old Spanish settlement; terminus of an important overland mail route to California; large trade with Mexico; wealthy and refined society; United States Arsenal.
Galveston..... 7,000.....	Chief commercial port of the State; large coasting and inland trade.
Houston 6,000.....	Head of steamboat navigation on Buffalo Bayou; principal railway centre of the State; extensive trade; manufactures of iron castings and machinery.

	Pop. in 1860.	Characteristics.
Brownsville	5,000.....	Town opposite the city of Matamoras in Mexico; large trade with northern Mexico and the interior of Texas; considerable coastwise and river commerce.

THE WESTERN STATES.

OHIO, INDIANA, ILLINOIS, KENTUCKY, TENNESSEE, MICHIGAN,
IOWA, WISCONSIN, MINNESOTA, MISSOURI, ARKANSAS,
KANSAS.

The Western States are embraced almost wholly in the Great Central Plain of North America, and accordingly exhibit little variety of surface. In the Eastern part this plain is broken by the descending terraces of the Appalachian highlands, and by the low ranges of mountains or hills which border the same. West of this they present a vast level or undulating tract, reaching far beyond the Mississippi. This almost unvarying expanse is chiefly made up of half-wooded and open prairies; the latter, or true prairies, being most extensive in Illinois, and in the States lying west of the Mississippi, and reaching as far south as the Ozark Mountains.

These prairies are essentially different from the llanos of South America, and the arid plains west of the Rocky Mountains. They are not so uniformly level, and are always possessed of a sufficient watershed to produce a steady flow in the rivers which drain them. They are also free from the protracted droughts which convert the former into sterile deserts. The region occupied by them embraces the western part of Ohio, nearly the whole of Indiana, Illinois, and Iowa, the northern part of Missouri, the southern part of Michigan, and portions of Kansas and Nebraska. In the two latter States they begin to assume the character of arid plains. The prairies are almost devoid of trees, which are met with only under peculiar circumstances of moisture and soil, being found only in scattered copses, or along the margin of streams, and

occasionally on low rocky ridges. West of the Mississippi the larger growth becomes less frequent, and near longitude 98° trees and grass alike disappear. The grass, which is of a coarse quality, forms excellent pasturage, and is not unfrequently interspersed with hazel thickets and sassafras shrubs, and in the proper season the prairies are decorated with a brilliant garniture of honeysuckles, jessamines, wild roses, and violets.

Along many of the larger rivers the bottom-lands are of considerable breadth. Those of the Missouri river, for instance, are five miles wide, but those of the Mississippi, below its junction with the Missouri, are the most remarkable for breadth, being frequently from forty to fifty miles wide; while the bluffs which border them are in some places often two to three hundred feet in height. The Western States are distinguished for the great depth and productiveness of their soil. No region of equal extent in the temperate zones rivals them in fertility.

Owing to the remarkable uniformity of the surface, the climate is less varied than in other sections of the Union. In parts of the West, intermittent fevers prevail to some extent, but this is mostly confined to the newly-settled districts, these fevers gradually disappearing as the country becomes settled, and the soil is cultivated.

The Western States are particularly distinguished for their rapid growth. Many of them have in less than one generation grown up into populous and wealthy States, surpassing in manufactures and commerce, and in extent of railways, canals, and lines of telegraph, not only many of the older Atlantic States of the Union, but some of the oldest nations of Europe. Fuller and more detailed evidences of this extraordinary development will be found in the separate description of the various States and the chief cities.

The middle and southern sections, lying mostly east of the Mississippi, are the most thickly settled, comparing favourably with many of the older Atlantic States. Most of the inhabitants of the West are emigrants, or the descendants of emigrants, from the more eastern States. The people are energetic, enterprising, and progressive; comparatively free from local prejudices and stereotyped customs; liberal in their sentiments; and open and cordial in their manners.

The great controlling interest of the West is agriculture; no other part of the world, except South-Eastern Asia, equals it in the production of food crops. The raising of bread-stuffs, especially, is conducted upon the grandest scale, and the vast fields of waving grain which meet the eye on every side are objects of wonder and admiration. The Western States are admirably adapted to the culture of fruit. Apples, pears, peaches, plums, cherries, currants, strawberries, blackberries, quinces, apricots, and nectarines reach a rare size and delicacy of flavour. Trees and vines grow rapidly and bear largely. The mulberry tree grows wild and is hardy and rank. With cultivation it would answer every want of the silk-grower. The alianthus worm, which has been imported from France and naturalized, would find in the abundant foliage of this tree rich materials for its fabric. The softness of the climate is peculiarly favourable to the health and industry of this insect.

The foreign commerce of the Western States is small, owing to their remoteness from the sea-board, yet they have a limited commercial intercourse with distant foreign ports, by means of vessels traversing the Mississippi, or the St. Lawrence and Great Lakes, besides a considerable trade with the Canadas.

OHIO.

Ohio is the most wealthy of the Western States. It was settled at Marietta, in 1788, by emigrants from Virginia and New England; ceded by Virginia to the United States October 20, 1783, and admitted into the Union April 30, 1802. Area, 39,964 square miles. Population, 2,339,511. The State had no white settlement until five years after the close of the American Revolution. In little more than half a century she has risen from a mere wilderness to rank among the first States of the Union, a rate of progress unexampled in history except in the adjoining States.

The surface, though much varied, nowhere presents any considerable elevation above the general level, but the whole country is a lofty tableland, the centre of the State being elevated 1000 feet above the level of the sea; about nine-tenths of the surface is susceptible of cultivation, and the soil may be generally characterized as fertile, much of it highly so, especially in the river bottoms. In the central and north-western sections, the prairies are numerous and wide. The greater part of the country was originally covered with magnificent forests, and timber is still very abundant. The climate in the south is mild, but in the north the temperature is rigorous.

Ohio is one of the richest mineral States of the Union. Iron and coal abound throughout the eastern portion of the State, and are deposited in beds of great thickness. The coal is bituminous, is of good quality, and lies very accessible, requiring comparatively little outlay to obtain it. The iron-trade of this region is destined, at no distant day, to become of great magnitude and importance. A belt of iron ore, averaging some twelve miles in width, extends

upwards of one hundred miles in length; each square mile of which, it is estimated, is capable of sustaining a furnace employing one hundred hands, and yielding eight tons of iron per day. Coal of the best quality, from three to twenty feet in thickness, underlies the whole of this belt of iron; and there can be no doubt that the mineral region of Ohio alone is susceptible of being rendered as valuable as the entire mineral region of England. Marble, freestone well adapted for building purposes, lime, and gypsum, are found in abundance. Salt springs are numerous.

In the value of its farm-products, Ohio ranks third in the Union. In the southern section, tobacco is extensively cultivated. Grape-growing receives much attention in some localities, chiefly in the vicinity of Cincinnati; and the quantity of wine produced is greater than in all the other Western States.

Ohio is noted for its live stock. Sheep are more numerous here, and yield a larger amount of wool, than any other State.

The manufactures exceed in value those of any other States except New York, Pennsylvania, and Massachusetts. They consist of flour and meal, clothing, machinery, spirituous liquors, boots and shoes, leather, and farming-tools. Great quantities of salt are made from the waters of brine-springs in the coal-bearing regions of the State. The internal commerce of Ohio is extensive. The amount of its overland transportation is exceeded only by a few of the other States. The external commerce by way of the Ohio River and Lake Erie is very large.

The chief cities are:—

Pop. in 1860.	Characteristics.
Cincinnati ...161,000... (in 1866, 230,000)	The largest city west of the Alleghanies; chief commercial centre of the Ohio valley;

Pop. in 1860.	Characteristics.
	and nucleus of an extensive railway and canal system; principal pork-market in America; important manufactures of sale clothing, iron goods, furniture, lard, oil, soap and candles, wines, etc.; extensive publication of books and other printed matter; collegiate institutions.
Cleveland ... 43,000...	Important commercial port; extensive railway and canal business; large manufactures of steam-engines, etc.; educational institutions; elegant streets and private residences.
Dayton 20,000...	Important railway centre; large transshipments of merchandise; extensive manufactures of flour, linseed oil, railway cars, paper, iron-ware, etc.
Columbus ... 18,000...	State capital; commercial depôt of a rich and populous region; thriving manufactures; magnificent State-house; medical college; benevolent institution; State penitentiary.
Toledo 14,000...	Chief commercial port at the western extremity of Lake Erie; great railway and canal business; extensive shipments of grain, flour, pork, live stock, etc.

INDIANA.

Indiana was settled at Vincennes, in 1690, by the French, and formed part of the north-western territory ceded by Virginia to the United States. It was organized into a Territory, May 7, 1800, from which the Territory of Michigan was set off in 1805, and Illinois in 1809. It was admitted into the Union December 11, 1816. Area, 33,809 square miles. Population, 1,350,428. Capital, Indianapolis.

The general features of Indiana are those which pertain to all countries where mountain, in the strict sense of

the word, is wanting. Nearly two-thirds of the State is level, or, at most, undulating ; and a most singular feature of the country is the absence of any watershed, or dividing ridge, such as almost every geographical region presents, from which the waters flow in different directions. Yet the country has continuous slopes of great extent.

The soil of Indiana is generally good, and much of it is highly fertile. The richest lands are found in the river bottoms, where the soil is very deep. This is especially the case in the Valley of the Wabash and its tributaries, and the Ohio Valley. The country between the rivers is somewhat elevated, and is not so luxuriantly fertile as on the river bottoms. It, however, amply repays the labours of the husbandman. There is but very little of the State that is uncultivable.

The climate partakes of the general character of the other Western States north of the Ohio. It is subject to sudden changes. The winters, though of short duration, are usually severe, and snow does not lie long. There is a considerable difference in the climate of the northern and southern portions of the State.

Indiana has large beds of coal, estimated to be 7700 square miles in extent, and to be capable of yielding 50,000,000 bushels to the square mile. Iron, lead, antimony, manganese, and zinc, are the principal metals found in the State. Salt-springs are also found on the eastern edge of the coal formation.

The leading crops are the same as in the neighbouring States. Tobacco is raised in the South. Sorghum, or Chinese sugar-cane, has proved very successful here, and yields large quantities of molasses. According to the farming returns of the last census, more swine were raised in Indiana than in any other State, and more sheep than in any except Ohio and New York.

Although the State is mostly devoted to agriculture, it has made good progress in several departments of manufactures. In the production of flour, meal, and spirits distilled from grain, it ranks with the leading States of the Union; and stood second in the value of boots, shoes, leather, and woollen goods made in 1860. A large domestic and transit trade is carried on upon its rivers, canals, and railways.

The chief cities are:—

	Pop. in 1869.	Characteristics.
Indianapolis...	19,000...	State capital; terminus of eight different railways; extensive transshipments of merchandise; manufactures of railway-cars, bar iron, carriages, waggons, farming-tools, etc.; elegant State-house; State institutions for the deaf and dumb, blind, and insane.
New Albany...	13,000...	Large inland and river commerce; extensive steamboat-building; manufactures of iron merchandise, brass-ware, bagging, etc.
Evansville ...	11,000...	Southern terminus of the Wabash and Erie Canal (the longest canal in the United States); great dépôt for agricultural produce; large river commerce.
Fort Wayne...	10,000...	Dépôt of a rich wheat-growing region; important flour-mills; exportation of flour, timber, etc; educational institutions.
Lafayette	9,000...	Head of steamboat navigation on the Wabash River; centre of an extensive railway and canal traffic; one of the chief grain-markets of the State; manufacture of flour, iron goods, paper, etc.

ILLINOIS.

This State was settled at Kaskaskia, in 1633, by the French, and formed part of the North-western territory ceded by Virginia to the United States. An Act for dividing the Indiana Territory, and organizing out of it the Territory of Illinois, was passed by Congress, February 3, 1809; and an Act to enable it to form a State Constitution, Government, etc., was passed April 18, 1818, a Constitution was framed August 26, and it was admitted into the Union December 23 of the same year. Area, 55,409 square miles. Population, in 1860, 1,711,951; 1865, 2,151,006. State capital, Springfield.

In no part of the Union have towns and cities sprung up so rapidly and in such wonderful growth, as in Illinois, increasing so fast in population, that the census of one year is no standard for the next.

Illinois is generally a tableland, and characterized as level, though there are elevated bluffs on the Illinois and Mississippi Rivers. The great landscape features of the State are the prairies. The Grand Prairie is the most remarkable, being over 150 miles in length, and varying in width from one to fourteen miles. In the north there are tracts somewhat stony, yet in every other part the plough may pass over millions of acres without meeting so much as a pebble to impede its course. The prairies undulate in a most graceful manner, and are profusely decked with flowers, the brilliant hues of which enchant the beholder.

“ Primrose and pale jessamine.

The white pink, the pansy freaked with jet,

The rose, the glowing violet, and the well attired woodbine.”

The most notable characteristic of the prairies is their destitution of the larger or arborescent vegetation. The

soil is, however, capable of supporting the largest trees, and nothing prevents their growth but the continual fires which sweep across the prairie country.

Illinois has a considerable variety of climate, and there is great irregularity in the seasons. The winters are everywhere severe, and the summers hot and prolonged. On the whole, the climate is favourable to out-door occupations, and the general salubrity is unquestionable.

The minerals in the northern part of Illinois are inexhaustible. Coal, limestone, and sandstone are found in every part. Iron ore is widely distributed. Lead and copper are most common in the north-west. The lead mines are most productive, and silver is found in combination with the lead ore. Zinc is also mined in some parts. The coal of Illinois is bituminous, and is spread over a large extent of country. Building stones of almost every description are quarried, and immense boulders of granite are shown upon the surface.

Medicinal springs, sulphur, and chalybeate are found in various parts of the State. In Jefferson County, there is a spring very much resorted to, and in the southern part of the State are some waters which taste strongly of Epsom salts.

The soil of Illinois is not excelled, if equalled, in any other State of the Union. That of the river bottoms is often twenty-five or thirty feet deep, and as inexhaustible as that of the Nile. The upper prairie districts are scarcely less productive. The richest tracts in the State are the great "American Bottoms," lying along the Mississippi, between the mouths of the Missouri and the Kaskaskia Rivers, a stretch of 80 miles; the country on the Rock River, and its branches; and that around the Sangamon, and other waters. As an instance of the productiveness of the soil, it may be mentioned that round about the towns which were first

settled by the French, the soil has produced Indian corn every year, without manuring, for a century and a half.

The agriculture of the State is mainly devoted to the raising of Indian corn. The other staples are wheat, oats, Irish potatoes, and hay; 30 bushels of wheat, or 60 bushels of corn to the acre is a common production. The prairies are peculiarly favourable to the raising of stock and dairy productions.

As regards manufactures, Illinois, as compared with the other Western States, ranks next to Ohio. Its productions being flour and meal, malt and spirituous liquors, farming-tools and furniture.

Its central position among the Western States renders it the thoroughfare of an immense trade. The internal and transit trade is of great importance, being facilitated by a greater extent of railways than exists in any other of the United States, and by the various navigable streams within its limits.

The chief towns of Illinois are :—

	Population.	Characteristics.
Chicago	109,000...	Unparalleled growth in population, the number of inhabitants in 1840 having been only 4470; principal primary grain market in the world; vast commerce by lake, canal, and railway—the tonnage of shipping employed upon the first-mentioned being much greater than engaged in the foreign trade of New York; great trade in timber, beef, pork, live stock, etc.; extensive manufactures of machinery and other iron merchandise, flour, spirituous and malt liquors, farming-tools, furniture, etc.
Peoria	14,000...	Commercial dépôt of a highly fertile region; water communication with St. Louis and Chicago; vicinity of extensive coal mines; large manufactures of machinery; centre of extensive railway communication.

	Population.	Characteristics.
Quincy.....	14,000...	River commerce; large exportation of country produce; extensive manufactures of iron merchandisc, barrels and casks, flour, furniture, etc.
Galena	8,000...	Market of the principal lead mining region in America; lead and copper smelting works; manufactures of lumber, flour, etc.; active river commerce; United States marine hospital.
Bloomington....	7,000...	Market of a rich agricultural and grazing district; various manufactures.
Springfield.....	12,000...	State capital; centre of a highly fertile prairie region; extensive nurseries; costly private residences.

KENTUCKY.

Kentucky was settled in 1775, by emigrants from Virginia. The name Kentucky (the dark and bloody ground) is an indication of the early history of the State, and of the terrible conflicts which took place with a savage and wily foe. It was included in the territory of Virginia till 1792, when it was admitted as a State. Its area is 37,680 square miles. Population, 1,200,000. State capital, Frankfort.

The face of the country presents a variety of aspects. In the south-east, the Cumberland Mountains—though they attain no great elevations—give to that portion a rugged and mountainous appearance; and the numerous spurs, or offshoots, projecting quite into the middle of the State, render the surface of the whole eastern division somewhat broken and hilly. Farther westward, the country becomes undulating, and west of the Cumberland River the land is mostly level. A range of hills runs nearly parallel with the Ohio River, with bottom lands intervening, sometimes having a breadth of ten, or even twenty miles.

When first settled, nearly the whole surface of this State was covered with a dense forest of majestic trees, and a close undergrowth of gigantic reeds, forming what are called cane-brakes. In the southern part, however, on the head waters of Green River and its tributaries, is an extensive tract, thinly wooded, and covered in summer with high grass growing amid scattered and stunted oaks. The most productive soil of Kentucky is that of the blue limestone formation. The "blue grass country," bordering on the Ohio, embracing an area of about one hundred miles square, is of most extraordinary fertility. The soil is of a loose, deep, black mould, without sand, from two to three feet deep, and exceedingly luxuriant in all its productions. In general fertility, Kentucky rivals the most favoured parts of the Mississippi Valley.

In climate, Kentucky enjoys a medium between the severity of the Northern States and the enervating heats of the South, having but two or three months' winter. The autumns and springs are very mild. It is exceedingly healthy, and the winter is never so severe as to render the housing of cattle necessary.

Kentucky ranks among the chief agricultural States of the Union, the principal crops being Indian corn, tobacco, wheat, and hemp. More than one-third of the hemp, and about one-fourth of the tobacco, raised in the United States are produced here. The yield of flax is also uncommonly large.

The deposits of bituminous coal and iron are extensively worked. In the production of woollen goods Kentucky stands very high. Bagging and rope—used for cotton bales—are extensively manufactured. The manufacture of tobacco is a noted branch of industry. Kentucky has a large commerce, though its transit trade is much less than that of the States on the north.

Its principal towns are :—

	Pop. in 1860.	Characteristics.
Louisville	68,000...	Large river commerce ; extensive trade in tobacco, pork, hemp, etc. ; steam-boat building ; important manufactures of machinery and other iron goods, prepared tobacco, sale clothing, etc. ; University of Louisville ; numerous benevolent institutions.
Covington .....16,471 } and Newport...10,046 }	27,000...	Adjacent cities opposite Cincinnati, Ohio, and connected with it by steam-ferries ; manufactures of cured tobacco, cordage, bar-iron, etc. ; Western Baptist Theological College ; United States barracks.
Lexington	9,000...	Large inland trade ; extensive manufactures of bagging, ropes, etc. ; Transylvania University ; State lunatic asylum ; orphan asylum.
Paducah.....	—	Principal market for the produce of the Tennessee valley ; river commerce ; steamboat building, and various other manufactures.

TENNESSEE.

Tennessee was settled before any other of the lands west of the Alleghanies. The first settlement was at Fort Donelson in 1756. The early history of the State is full of the records of bloody struggles with the Indians. It was ceded to the United States by North Carolina in 1789, and accepted by Act of Congress the same year ; it adopted a Constitution, and was admitted into the Union

in 1796. Area, 45,000 square miles. Population, 1,109,801. State capital, Nashville.

The surface of the State is very agreeably diversified with mountain, hill, and plain, and within its limits are found fertility of soil, beauty of scenery, and a delightfully temperate climate. The Cumberland hills, and many of the mountain ridges and sunmits, are estimated to be from 1,500 to 2,000 feet in height; most of them covered with forest trees. The central portion of the State, stretching from the mountains to the Tennessee River, has a broken surface; but towards the Mississippi, which forms the western boundary of the State, the country is comparatively level.

Coal and iron are found in great abundance, and there are many rich deposits of copper. Gold and silver, lead, zinc, manganese, magnetic iron ore, gypsum of superior quality, and a great variety of beautiful marbles, slate, nitre, burr-stones, and limestone, are among the minerals. Valuable salt and mineral springs abound.

The climate, excepting in the river lowlands, is agreeable and healthful—exempt from any extreme of either heat or cold. The eastern division is noted for its pure, bracing mountain air.

The hills and mountain slopes of Tennessee, affording an abundance of fine pasturage, offer great facilities for the raising of stock; much attention is given to wool-growing, and there are hundreds of flocks of sheep of the best varieties. Horses, mules, cattle, and swine are raised in large numbers for the Southern markets. More live stock is raised in Tennessee than in any other State of the Union. The soil is generally arable, and of a good quality. The western portion of the State has a rich black mould, producing large crops. The State altogether forms one of the finest agricultural regions on the continent. Large

quantities of tobacco, cotton, and Indian corn are grown. Rye, oats, barley, and maple sugar, are also cultivated to a considerable extent.

Manufactures, though yet in their infancy, are increasing in importance. Leather, cotton goods, and pig-iron are the most prominent articles.

The chief cities are :—

	Pop. in 1860.	Characteristics.
Memphis	.....23,000.....	Principal port on the Mississippi, between St. Louis and New Orleans; important railway connections; great trade in cotton, etc.; ship-building, and various manufactures.
Nashville	.....17,000.....	State capital; head of steamboat navigation on the Cumberland River; large inland commerce; manufacture of machinery and iron castings; magnificent State-house; State penitentiary; lunatic asylum; Nashville University.
Knoxville	..... 3,500.....	Head of steamboat navigation on the Holston River, and port of entry for East Tennessee; important railway connections; flourishing trade with the interior; vicinity of extensive beds of coal and iron; large manufacture of window-glass, etc.; deaf and dumb asylum; East Tennessee University.
Chattanooga	... 5,000.....	Depôt of a thriving inland trade; river commerce; manufacture of cabinet furniture, etc.

MICHIGAN

Was settled at Detroit in 1670, by the French, and was part of the territory ceded to the United States by Virginia. It was erected into a separate Territory in 1805; an Act to attach to it all the territory of the United States west of the Mississippi River, and north of the State of Missouri, was passed in 1834; Wisconsin was organized from it in 1836; a Constitution having been adopted, Michigan was admitted into the Union in 1837. Area, 56,243 square miles. Population, 749,113. State capital, Lansing.

This State is nearly surrounded by the waters of the Great Lakes, and has a coast of more than a thousand miles. There are many beautiful ponds scattered over the interior, whose shores are noted for their picturesque beauty. The southern peninsula may be generally characterized as a vast undulating plain, which seldom becomes rough or broken. In the south-west are rich prairie lands. The shores of Lake Huron consist of steep and rocky bluffs; while Lake Michigan is coasted by shifting sand-hills of from 100 to 200 feet in height. The northern peninsula is in every respect a contrast to the southern, from which it is separated by the Straits of Makinaw; its general aspect is rugged, and the Porcupine Mountains attain an elevation of 2000 feet; these mountains are succeeded by a succession of plains and hills, which gradually extend into an elevated tableland, and finally into an undulating country, sloping on either hand towards the lakes. The greater portion of this region is occupied by vast forests, and much of the remainder by sandy plains.

The romantic district of the "Lake State" is in the

upper peninsula, which is rich in all the loveliness of rugged, rocky coast, of the most fantastic and striking character, and varied by beautiful streams, rapids, and cascades. Here are found the celebrated "Pictured Rocks."

The soil of Michigan is as varied as its surface; in the southern and middle portions it is characterized by great fertility, consisting mostly of a deep sandy loam, free from stone; in the north it is sterile, and a large portion possesses but few agricultural capabilities. Much of Southern Michigan is occupied by natural lawns, with scattered groups of trees, called "oak openings."

The climate is one of extremes, but much tempered by the proximity of the lakes. In the south it is comparatively mild; but in the north the winters are extremely cold and rigorous.

There is little or no agriculture in the northern portion. In the southern, the chief crops are wheat and rye. In the production of potatoes, peas and beans, orchard fruits, butter and cheese, Michigan ranks among the principal Western States; and in the yield of maple sugar is surpassed only by New York, Vermont, and Ohio. The production of peppermint in the State is becoming a very considerable branch of business, as it appears from the internal revenue department that 90,000 dollars' worth of that article was manufactured during the year 1865. The clip of wool for 1864 amounted to eight millions of pounds. From this it would seem that Michigan is destined to become one of the leading, if not the first, wool-growing States in the Union.

It also promises to become one of the chief apple-raising States. The shipments in 1865 were estimated at 410,000 barrels, which, at an average price of 3 dollars 50 cents per barrel, were worth nearly 1,500,000

dollars. The lakes and streams afford productive fisheries, the white fish being especially abundant.

The northern peninsula contains most of the mineral wealth of the State, and possesses probably the most valuable copper mines in the world, the deposits are of unsurpassed richness, masses of pure copper, several tons in weight, having been mined. The quantity of ore shipped in 1865 was 10,000 tons. Iron is found in both the northern and southern peninsulas; 273,000 tons were produced in 1863. Lead, gypsum, limestone, and marl are also found. In the lower peninsula is some coal, but it is not extensively worked.

Manufactures are actively carried on; and the State has a thriving and extensive commerce, of which a large portion is with Canada. Vast quantities of timber are cut in the northern forests; the annual produce of sawn timber is estimated at nearly 8,000,000 feet.

The chief towns are:—

	Pop. in 1860.	Characteristics.
Detroit.....	46,000.....	Extensive commerce; great exportation of wheat, flour, beef cattle, etc.; ship and boat-building; manufactures of timber, machinery, etc.; broad and beautiful streets.
Grand Rapids.....	8,000.....	Principal commercial mart of Western Michigan; head of natural navigation on Grand River; great water-power; flourishing manufactures; quarries of limestone, marble, and gypsum.
Adrian	6,000.....	Centre of trade for a rich agricultural region; exportation of grain; great water-power; manufactures of machinery, etc.
Kalamazoo	6,000.....	Market of a rich farming district; valuable iron mine; manufactures of pig-iron, iron castings, machinery, etc.;

Pop. in 1860.

Characteristics.

Kalamazoo College, Baptist Theological Institute, and other superior educational institutions; State lunatic asylum.

Jackson 5,000..... Active trade with the interior; valuable mines of anthracite and cannel coal; extensive and various manufactures; State penitentiary.

IOWA.

Iowa is the fourth State that has been carved out of the vast territory purchased from France in 1803. It was settled by the French at Dubuque, in 1836; was organized as a separate Territory in 1838; and in 1846 was admitted into the Union. Area, 55,045 square miles. Population, 674,913. State capital, Des Moines.

Iowa is a country of unrivalled beauty. Its surface is moderately undulating, with no mountainous parts. The southern portion is the most picturesque, abounding with grassy lawns and verdant plains, interspersed with groups of trees and meandering rivulets. In the north the scenery is more striking; the hills and mounds, none of which reach a great elevation, are covered to their tops with towering oaks, and magnificent streams of water fall over precipitous ledges of rocks to the lower plains. The prairies stretch out in vast unbroken plains; the upland prairies being the most beautiful and the best adapted for cultivation; their soil is generally a rich black mould, mixed with a sandy loam, red clay, and gravel. The valleys of the Cedar, Iowa, and Des Moines, are the principal agricultural regions of the State, and perhaps

stand first with regard to the capability and character of the soil, though nowhere is the land either unprofitable or unproductive, and no State has so little inferior land.

The climate is beautiful, and well adapted to agriculture, and though the rivers are frozen over from December to March, the peach blossoms in April and wheat ripens early in August. The air is dry and bracing, especially on the prairies. The country is free from epidemic, and pulmonary diseases are comparatively unknown. Periodical breezes blow over the prairies with much regularity.

Like the majority of the Western States, Iowa owes its prosperity to its agricultural resources, and probably no country possesses greater attraction to the agriculturist. The fine prairies are easily cultivated, and its natural pastures afford peculiar facilities for the rearing of cattle and sheep. Wheat, corn, oats, barley, potatoes, and wool are the staple products. The returns of 1860 show an increase in wool at the rate of 100 per cent. In proportion to the extent of its improved land, Iowa supplies more grain than any other State. Sorghum is largely cultivated, and the yield of sorghum molasses is unequalled elsewhere in America.

Although mainly an agricultural State, Iowa is possessed of great mineral wealth; the mineral region is confined to the neighbourhood of Dubuque. The lead mines are extensive, and are among the most productive and valuable in the world. Iron ore is abundant in several districts; but as yet the mines have not been worked to any great extent. Bituminous coal is obtained from rich deposits in the interior, and always finds a ready market at various points on the Mississippi River.

Such manufactures as are common in the West, are being rapidly developed here; although at the period of the last census none but those of flour, meal, and sawn

timber had become important. Paper and farm machinery are manufactured to some extent. Extraordinary facilities for steamboat trade are afforded by the great rivers which bound the State or pass through its limits.

The chief towns are :—

	Pop. in 1860.	Characteristics.
Dubuque	.....13,000.....	Chief market of the upper Mississippi Valley for grain, timber, etc., and principal depôt of the lead-mining region of Iowa; large river commerce and inland trade.
Davenport	.....11,000.....	Picturesque scenery; important railway connections; bridge across the Mississippi; valuable coal-mines; various manufactures; Iowa College.
Keokuk	..... 8,000.....	Chief market for the products of the Des Moines Valley; important river commerce; medical department of the State University.
Burlington	..... 7,000.....	Flourishing commerce; extensive trade in timber and pork; large manufactures of machinery, farming tools, flour, etc.
Muscatine	..... 5,000.....	Large inland and river commerce; important trade in timber; various manufactures.
Iowa City	..... 5,000.....	Head of steamboat navigation on Iowa river; various manufactures; chief bank of the State; Iowa State University; State asylum for the deaf and dumb and the blind.

WISCONSIN.

Wisconsin was settled by emigrants chiefly from the New England States and New York. It was formed into a Territorial Government in 1836, and admitted into the Union in 1848. Area, 53,924 square miles. Population, 775,881. State capital, Madison.

Wisconsin, like most of the north-west section of the Union, consists chiefly of stretches of elevated prairie land, sometimes 1000 feet higher than the level of the sea. There are no mountains in this State, but there are characteristic plateau ridges, which drain the waters, and afford beds for the rivers and lakes; the land declines rapidly towards Lake Superior, and the streams are much obstructed by falls and rapids. The shores of Lake Superior and Lake Michigan are often most picturesque, fringed now with magnificent forests, now with rocky precipices. The waters are clear, and abound in delicious fish.

The climate, though extremely severe in winter, is regular, and free from unhealthy and rapid changes.

The southern and middle portion is a fine agricultural region. In the northern part of the State the land under cultivation forms but a small portion, the surface being to some extent covered with drift and boulders, with many ponds and marshes. Immense and valuable forests of pine and oak compensate, however, for the lack of agricultural capabilities. It is distinguished as a wheat-growing State, being surpassed only by Illinois. The crops next in importance to wheat are hay and oats.

A number of beautiful marbles exist in the northern part, some of a pink colour, with seams of deep red, others of a blue and dove colour.

Lead is extensively mined in the south-western part of

the State, which includes most of the rich lead-bearing region. A small quantity of copper is also mined. A bed of magnetic iron ore lies south of Lake Superior. In the cutting and sawing of timber, Wisconsin ranks third among the Western States.

The commerce in the products of the fields and forests is large, being facilitated by the great extent of the navigable waters. Wisconsin has the chief control of the "lumber" market of the Mississippi Valley.

The chief cities are :—

	Pop. in 1860.	Characteristics.
Milwaukee.....	45,000.....	Second commercial port on Lake Michigan ; excellent harbour ; great exportation of grain and other farm produce, timber, brick (of superior quality and beauty), wool, beer, etc. ; extensive manufacture of flour, sawn timber, machinery, etc. ; female college ; numerous charitable and benevolent institutions.
Racine	9,000.....	Remarkably healthful situation ; flourishing commerce ; large exportation of agricultural produce ; various manufactures ; Racine College ; excellent public schools.
Janesville	8,000.....	Important railway centre ; market of the richest agricultural district in the State ; thriving manufactures ; Wisconsin Institute for the Blind.
Madison	7,000.....	State capital ; highly picturesque scenery ; flourishing trade ; extensive pork-packing establishments ; various manufactures ; University of Wisconsin ; State lunatic asylum.
Oshkosh.....	6,000.....	Extensive timber trade ; manufactures of flour, agricultural implements, iron castings, etc.

MINNESOTA

Was settled about the year 1846, by emigrants from the Northern and Western States. It was organized as a Territory in 1849, and admitted into the Union in 1857. Area, 83,531 square miles. Population, 172,123 whites, and about 25,000 Indians, many of the tribes being of a warlike character. State capital, St. Paul.

Its name is derived from the river Minnesota, which means, in the Dacotah tongue, "muddy water."

In 1851 immigration set in most rapidly. In 1850 the number of ploughed acres was 1900; in 1854, 1500; and in 1860, 433,276, having increased nearly thirtyfold in six years. A large portion of the State is a fine rolling prairie of rich soil, a sandy loam adapted to the short summers of the climate, and which produces bounteously. The country, excepting the Missouri plains, is interspersed with numerous beautiful lakes of fresh water, all abounding in the finest fish, and their banks covered with a rich growth of woodland. The land is about equally divided between oak openings and prairies, the whole well watered by numerous streams, many of them navigable for steamers.

The surface of the country is undulating, with a great diversity of landscape, and beautified by a number of picturesque lakes, sparkling waterfalls, and high bluffs. The climate is marked by distinct peculiarities; it has the winter temperature of Canada and New England, without their excessive falls of snow. The area of the State suited for agriculture is about three-fourths of the entire extent, or 40,000,000 acres, and there remained, in 1865, 37,000,000 acres open for settlement. The soil in the valleys of the rivers is most excellent; above the Falls of St. Anthony it is generally too wet for cultivation.

The southern portion, comprising about one half of the State, embraces the best farming lands, and presents a remarkable uniformity in the presence of those elements which are essential to the highest fertility. The principal crops, in the order of their value, are hay, wheat, Indian corn, potatoes, and oats. The wheat yield of Minnesota for 1865 is said to be unprecedented, it averaging 27 bushels to the acre, and the entire crop being estimated at 12,000,000 bushels. Copper and iron ore exist in considerable quantities; also coal; good building stone, slate, and clay are found in different sections of the State; a remarkable mineral is the red pipestone, of which the Indians make their pipes.

The State has an abundance of the finest milling and manufacturing facility. The falls of St. Anthony have a capacity estimated by engineers to be equal to 120,000 horse-power. This water-power is situated in the centre of a fertile country. It is also the head of several thousand miles of navigation. A great extent of unimproved land is devoted to the pasturage of beef cattle and swine. Manufactures, except of flour, meal, and sawn timber, are comparatively unimportant.

The principal towns are:—

	Pop. in 1860.	Characteristics.
St. Paul	10,000.....	Head of steamboat navigation on the Mississippi River; active commerce and inland trade; various thriving manufactures.
St. Anthony..... 3,258 } and Minneapolis 2,564 }	6,000.....	Grand waterfall on the Mississippi; sawn timber manufacture; trade with the interior; University of Minnesota.
Stillwater	3,000.....	Extensive timber manufacture and trade; market of a rich agricultural district; State penitentiary.

MISSOURI.

Missouri formed part of the ancient territory of Louisiana, purchased by the United States from France; and was settled in 1763 by the French. It was admitted into the Union in 1821. Area, 65,037 square miles. Population, 1,182,012. State capital, Jefferson City. The face of the country in the south-east, near New Madrid, was greatly changed by the earthquakes which occurred in 1812; hills entirely disappeared; lakes were obliterated and others formed. The waters of the Mississippi River were turned back with such accumulations that they overflowed the levels, and inundated whole regions.

The surface of this great State is in many parts level, or but slightly undulating. A wide marshy tract occupies an area of 3000 square miles in the south-eastern part, near the Mississippi; in other sections are vast reaches of prairie land, which extend to the Rocky Mountains;

“Wide rolling prairie, like waves of the ocean,
Laughing with plenty for hands that will toil,
Broad shady woods, 'mid whose wind-given motion
Sunlight comes dancing down over the soil.”

Its healthy climate, rich soil, and immense mineral wealth, claims and is receiving the earnest attention of emigrants westward bound. Immediately south of the Missouri River, which divides the State into two parts, the soil is well adapted for general agriculture, and the mountain portions of the south are renowned for their magnificent pine forests, comprising millions of acres. The western section is generally regular and uniform. Of the 35,000,000 acres of arable land in the State, 2,000,000 are the alluvial margins of rivers, and 20,000,000

high rolling prairie. This soil is practically inexhaustible, in the bottoms the mould is sometimes six feet deep. Some farms, after bearing without artificial fertilization twenty-five successive crops, have yet failed to show any material decrease in productiveness. The strength of the land and the length of the season often permit two harvests to be gathered from the same field in one year.

The State is remarkably rich in iron ore, lead and copper and coal mines, and in nearly all the mineral products, including sulphuret of zinc, tin, silver, platina, cobalt, nickel. It possesses, also, a great variety of marbles, and other valuable building stones. The supply of iron ore is practically inexhaustible, Iron Mountain, Pilot Knob, and other immense masses of pure ore, are estimated to be able to furnish above surface one million tons per annum. The lead mines have been worked for fifty years, and next to iron, lead is the most abundant mineral in the State. Small deposits of gold have been found. Among the Western States, in the value of its iron manufactures, Missouri is surpassed only by Ohio, and is one of the chief manufacturing States of the West. The vast coal beds which underlie the northern section add largely to the value of the lands; they vary in thickness from three to fifteen feet, and will probably yield not less than 20,000 tons per acre.

Missouri possesses many natural advantages, and offers great inducements for prairie farming, its extensive regions with uniform evenness of surface, the native and inexhaustible richness of prairie soil, and the mild and healthy climate, make it a most favourable locality for agricultural purposes. Notwithstanding the wonderful wealth of soil, more than 25,000,000 acres of land in Missouri are uncultivated, and 6,000,000 acres are subject to entry at government price or under the Homestead Law.

All the cereals grow with rank luxuriance. Cotton is produced in the southern portion of the State. Sorghum and Imphee are developing into a large interest. Hemp and tobacco are two of the main staples; equal to the best growth of Kentucky and Virginia, they are a vast source of wealth to the State, and few crops yield a larger profit. Missouri produces more than 45 per cent. of the hemp of the United States. Fruit culture is one of the most lucrative branches of industry; the mulberry tree grows wild and is very hardy. Like many other sources of wealth in Missouri, the pine forests still remain in their primeval solitude, waiting the hand of intelligent industry and enterprise to develop their wealth and turn them to account. There are millions of acres of land in the southern and south-eastern portion of the State covered with a growth of yellow or hard pine, equal to that of any other region. From these turpentine, resin, and tar, can be profitably made; about 50,000 dollars' worth was made during the year 1865. The soil in the central and southern portion is all that could be desired for the culture of the grape, which has already been greatly developed; the yield since 1849 being about 250 gallons per acre, worth on an average one dollar and a half per gallon. It is reckoned that at least 15,000,000 of acres are suitable both as regards soil and climate, for grape cultivation, or about three times as many as are taken up by the vineyards of France. The climate of Missouri is exceedingly mild, the summers are long and salubrious, and the winters short and free from any severe frosts.

The commerce of Missouri is very important, through the great facilities offered by the navigation of the two greatest rivers in the United States. By means of the Mississippi she has commerce with the vast Northern territory of the Union, with the whole valley of the Ohio,

some of the Atlantic States, and the Gulf of Mexico ; by the Missouri, which passes through the central part of the State, she can extend her commercial intercourse to the Rocky Mountains. According to the census of 1860, Missouri ranked as the sixth stock-producing State in the Union.

The principal towns are:—

	Pop. in 1860.	Characteristics.
St. Louis	.....161,000.....	Commercial centre of the Mississippi Valley; immense river trade; vicinity of rich mines of coal, iron, lead, and copper; great exportations of bread-stuffs, pork, lead, and hemp; extensive steamboat building; extensive manufactures of iron goods, flour, refined sugar, lard oil, etc. In the extent of its flour business, it is unrivalled by any other Western city; United States arsenal; St. Louis College.
St. Joseph.....	9,000.....	Western terminus of highly important railway route; point of departure for the overland mail and express to California and intermediate places, and for large westward emigration; extensive trade; manufactures of flour, timber, bagging, etc.; United States marine hospital.
Hannibal	..... 7,000.....	Highly important railway connections; market of a rich agricultural section; manufactures of cured tobacco, flour, iron castings, etc.; active commerce.

ARKANSAS

Was settled at Arkansas Post in 1685, by the French, and was part of the Louisiana purchase ceded by France to the United States in 1803. It was formed into a Territory in 1819, and admitted as a State in 1836. Area, 52,198 square miles. Population, 435,450. State capital, Little Rock. The physical conformation of this State is exceedingly varied. The eastern portion, forming the west bank of the Mississippi River, is low, flat, and swampy for a distance of from thirty to sixty miles from the river. In the interior the country becomes somewhat hilly, occasionally varied with rolling prairies; and, still further west, rises into the Ozark Mountains. In the north-east portion, the valley of the St. Francis River is one continuous cypress swamp, the Black Hills being the only considerable elevation. No State in the Union possesses so many navigable streams as Arkansas, though, owing to the protracted drought of summer, none save the Mississippi can be ascended by vessels of large size more than nine months in the year.

The soil of Arkansas is varied in character, and for the most part is extremely sterile, or of extraordinary productiveness. Much of the hilly country will not repay cultivation, while the river-bottoms are of the richest and deepest black mould, yielding fifty to eighty bushels of Indian corn to the acre. The country west of the Ozark Mountains and the northern section of the State, however, is elevated and fertile, producing excellent wheat, and, perhaps, the finest apples in the world. The staple productions of Arkansas are Indian corn, cotton, and live stock, with considerable quantities of wheat, oats, tobacco, wool, peas, beans, sweet potatoes, rye, barley, buckwheat,

hops, hemp, flax, silk, grass-seeds, hay, and also some maple sugar, honey, wine, and cheese. The pecan, a species of hickory, furnishes in great abundance the nut of that name, now a considerable article of commerce. Immense quantities of the different kinds of timber are shipped down the Mississippi to New Orleans. The State still abounds with many wild animals. The bear, deer, and here and there the buffalo, still afford ample sport to the hunter.

Arkansas is rich in undeveloped mineral wealth. Cannel, bituminous, and anthracite coal is found in great abundance on the banks of the Arkansas; and zinc exists in greater quantities than in any other State except New Jersey. Iron, lead, gold, and manganese are also found; while the beds of gypsum are said to equal those of all the other States together. Extensive beds of fine oil-stone, and some rich salt-springs, have also been discovered. The climate is temperate, but subject to sudden changes; and terrific thunder-storms prevail during the spring and summer. The hilly country and tablelands are salubrious, but the low valleys are destitute of water, and are exceedingly unhealthy.

The manufactories of this infant State are, with the exception of saw-mills and tanneries, quite insignificant. As might be expected of a country just emerging from the wilderness, education and all the arts of civilized life are equally backward.

In Arkansas are those hot springs which have of late become so celebrated for their curative properties as to attract rheumatic invalids from all parts of the Union. The springs, about one hundred in number, are situated in a sandy ridge near the Washita River, and vary in temperature from 105° to 160°.

The chief towns are:—

Pop in 1860.	Characteristics.
Little Rock.....4,000.....	State capital ; contains United States arsenal ; State penitentiary ; large interior commerce.
Batesville .....1,000.....	Head of steam navigation of White River.
Fort Smith.....2,000.....	Military post ; extensive trade with Indians.
Camden .....1,500.....	Head of navigation for large steamers on Red River ; flourishing trade.

KANSAS.

Kansas was organized as a Territory by Act of Congress in 1854. It was settled by emigrants from the Eastern, Northern, and Southern States, and was admitted into the Union, January 29th, 1861. Area, 80,000 square miles. Population, 107,000. State capital, Topeka.

For several years a fierce contest raged in this Territory on the subject of slavery ; but this strife was finally adjusted by its admission into the Union as a free State, that being the declared will of the majority of its inhabitants.

The natural scenery of the State is highly beautiful. The prairies, broad and extensive, stretch for miles in many places. There are high bluffs running through the entire length of the State, while ravines run from them to the rivers ; these are, at some points, quite deep, and difficult to cross, and to a traveller unacquainted with the country, somewhat vexatious, especially where the prairie-grass is from four to six feet high. The ravines are, in many instances, pictures of beauty, with tall, graceful trees standing near, and springs of pure cold water gushing from the rock. The bluffs are a formation unknown

in form and appearance in any other portion of the West. Many of them appear like the cultivated grounds about fine old residences—terrace rising above terrace with great regularity, while others appear like forts in the distance.

The climate is exceedingly agreeable, with a clear, dry atmosphere, and gentle, health-giving breezes. Objects may be clearly distinguished which, at the same distance in any other parts of the country, could not be seen at all. The winters are usually very mild and open, with scarcely any snow; so mild are they, that the cattle feed the entire year in the prairies and river-bottoms. The spring weather commences in February.

The soil of Kansas is unsurpassed by any in the Mississippi Valley, preserving everywhere the character of a rich, heavy loam. The first terrace above the rivers is covered with an alluvial soil, often four to six feet in depth; the higher terraces and uplands have the common prairie soil of the West; the subsoil is usually a stiff clay, in some localities mixed with gravel; lime is everywhere a prominent ingredient of the soil. Water-powers are found upon some of the streams. The eastern portion, which is still mostly open for settlement, is one unbroken stretch of arable land, with a drainage so perfect that not a pond or swamp exists over its whole extent; a fine, nutritious grass grows everywhere, yielding, even on the dry prairies, two tons of hay per acre. Owing to the dryness of the atmosphere, fruit ripens quickly, and its juices are concentrated to the finest flavour.

Kansas has great capacities for agriculture and stock-rearing. In 1860 the chief staples were Indian corn, hay, and potatoes. The production and manufacture of wool promises to become an important branch of industry, and a large portion of the State is well adapted for sheep-

raising; so profitable has this already proved that woollen-mills are erected in Atchison. In addition to the stock of sheep in the State, it is estimated that from 50,000 to 75,000 will be annually imported from various parts of the Union.

Besides the great capabilities of Kansas for agricultural purposes, stock-raising, and wool-growing, she has another source of wealth, in relation to which but little is known, in the salt springs which exist above Fort Riley, in the valleys of the Republican, Solomon, and Saline Forks. So abundant are these surface brines, and of such uncommon strength, as sensibly to affect the quality of the large streams of water which run through those valleys and empty into Smoky Hill River. These salines are of great benefit to the stock-raiser, whose flocks and herds require no salting, as in the Eastern States. The western section is the best suited to grazing. Deer and bears are captured in all parts of the wilderness, and buffaloes on the western plains.

Manufactures have acquired little importance. The building of machinery, however, is of considerable importance.

Kansas, being situated nearly in the middle of the national domain, with rich mineral regions, in the pathway to the Pacific, is the channel of a large westward emigration, and of a rapidly growing commerce.

The chief towns are:—

Pop. in 1860.	Characteristics.
Leavenworth...7,500.....	Chief city of the Missouri Valley; remarkably rapid growth; large river commerce; extensive trade with the Territories; thriving manufactures.
Atchison.....3,000.....	Principal station for forwarding merchandise received from St. Joseph, Missouri, to Salt Lake City and Marysville, California;

Pop. in 1860.

Characteristics.

weekly mail express and passenger coaches
to the latter points.

Lawrence2,000.....Trade with southern and south-western
Kansas; intelligence of its inhabitants;
literary institutions; newspapers.

THE PACIFIC STATES.

CALIFORNIA, OREGON, NEVADA, COLORADO.

The development of the Pacific and Rocky Mountain section of the public domain is truly surprising. It is remarkable that while the Union was engaged in a great civil war, it was nevertheless growing in wealth and developing its resources. This was due in a great measure to the mineral riches and virgin soil of this region, and so rapid has been its progress, that the maps of one year are almost obsolete the next.

In 1860, California and Oregon were the only Pacific States. To these have since been added, Nevada and Colorado. These States have literally been carried into the Union by the stream of precious metals they have poured forth from sources seemingly inexhaustible. The population has increased in a most rapid degree, consisting chiefly of emigrants from the Eastern States, attracted by the wealth of the districts, though nearly all nationalities are represented.

The mining operations constitute the principal industry, though agriculture receives much attention. The vegetation of these States is remarkable for its rapid and excessive growth. The forest trees reach an enormous size in the valleys, and the market produce is developed in the same proportion. As the demand for produce arises in proportion to the increase of the population, a premium is held out to agriculturalists. The demand for capital and labour is great, in order to develop the resources of the region embraced by these States.

CALIFORNIA.

The history of this State is of great interest. It was discovered by Cortez in 1534. Sir Francis Drake visited the coast in 1570, and the country was settled by the Spaniards at Diego about the same time. The war between the United States and Mexico, in 1846, resulted in its conquest and purchase. After several attempts to organize it as a Territory or admit it as a State, a law was passed by Congress for the latter purpose, which was approved in 1850. Area, 188,981 square miles. Population, 305,439. Capital, Sacramento.

In January, 1848, James W. Marshall, in the employ of Captain Sutter, at Sutter's Mill, where the present town of Coloma is situated, discovered gold, and from that time the progress of the country has been unprecedented. "California," says the Hon. William Stewart, "the mother of the Pacific States, has, since the discovery of gold, laboured under disadvantages and embarrassments that would have crushed any country less favoured by nature, or inhabited by a less enterprising people. Her intercourse with the east was hindered by thousands of miles of travel over mountains and deserts, inhabited by hostile Indians; or by long and perilous voyage through tropical seas and foreign lands. Her people were at first transient, coming with the intention of gathering the golden treasure to spend in their eastern homes. But California has progressed: her cities, her fertile fields, her manufactories, her commerce, and her hills and mountains, upturned in search of gold, mark the wealth of her resources and the energy of the powers of the Pacific."

No other country comprises within so small a space such various and strongly marked characteristics; moun-

tains steep, rugged, and barren ; valleys fertile and beautiful ; sterile deserts, broad prairies, and dense forests ; extensive marshes, and magnificent rivers, all in striking juxtaposition, are found. The two great ranges of mountains, the Sierra Nevada and the Coast Range, traversing the State north-west, and south-east, give the State its characteristic features. Between these two great ranges lies the extensive country of the First Division, a valley of some 5000 miles in length, with an average breadth of 75 miles, with a rich soil and warm climate. The lateral valleys, with an elevation of from 1000 to 5000 feet above the level of the sea, produce hardy fruits and grains common to the more northern States. A belt of gigantic timber, consisting of pines, firs, cedars, oaks, etc., etc., extends the entire length of the Sierra Nevada range, affording a supply of wood which can hardly be exhausted. The mining region also stretches along this range, extending on the north into the Coast Mountains, passing into Oregon with an average breadth of forty or fifty miles, at some points extending from the valley to near the summit of the Sierra, a distance of 100 miles.

The Second Division, located near the coast, contains many beautiful valleys, some of which are very extensive, as that of the Salinas, whose outlet is at the Bay of Monterey and the country adjoining Los Angeles and San Diego. This portion has a cooler climate than the lower valleys of the First Division, owing to their proximity to the sea. Oaks and gigantic red woods afford fine timber.

Of the Third Division, situated east of the Sierra Nevada, but little is known, yet many fine valleys occur, and gold is found along the eastern slope of the Sierra.

Orchard fruits are cultivated with great success. Grapes grow most luxuriantly, and require apparently but little attention. In 1865 the amount of wine produced in

California is stated to be 2,000,000 gallons, or more than twice as much as was produced in the whole of the United States in 1860. The number of grapevines in the State was 40,172,650 many of which were not in a bearing condition. When these vines become productive, there is little doubt but that the annual product of wine will be at least 35,000,000 gallons. The culture of raisins promises to become an important feature. Strawberries, blackberries, and raspberries are also extensively cultivated; from the latter a wine of inferior quality is made.

Although little more than one third of California is suited to tillage, and but a small part of this area has been as yet cultivated, its capacity for producing the cereals is extraordinary. The production of wheat in 1860 was 7,500,000 bushels. The State produces more barley than all the rest of the Union, and has an annual surplus of about 5,000,000 bushels. The average yield of wheat is from twenty to twenty-five bushels to the acre; large fields, however, have frequently borne from seventy to eighty bushels an acre. Next in importance are hay and potatoes. Garden products are largely cultivated. Cattle are extensively reared, immense herds roaming at large upon the plains.

The vegetation of California grows with remarkable rapidity, and trees and vegetables reach an enormous size; ten feet diameter is by no means an uncommon size for a forest tree, or twelve or fifteen inches for a turnip. The State is peculiarly adapted for fruit. The most luscious kinds, such as figs, oranges, melons, grow in abundance on the slopes and in the valleys of the interior.

Mining is the most prominent and important industrial pursuit, it employs more men, and pays a larger average wage, than any other branch of physical labour. The mines now wrought are of gold, silver, quicksilver, copper,

and coal. Ores of tin, lead, and antimony, beds of sulphur, alum, lakes of borax, and springs of sulphate of magnesia, are likewise found. The gold mines are, however, the most important; the annual yield is about \$40,000,000 (£8,000,000). It is impossible to ascertain the amount of gold which has been taken from the mines; the exports of the precious metal, according to the customs books, from the commencement of the year 1849 to the close of 1864, were as follows:—

1849	\$4,921,250	1857	\$48,976,697
1850	27,676,346	1858	47,548,025
1851	42,582,695	1859	47,649,461
1852	46,586,134	1860	42,303,345
1853	57,331,044	1861	40,639,080
1854	51,328,663	1862	42,561,761
1855	45,182,631	1863	46,071,920
1856	48,887,543	1864	14,662,328

Total, sixteen years, \$694,908,923. Six months of 1865, \$22,307,492.
Grand total, \$717,216,415 (£143,443,283).

Nearly all the copper ore, and a good deal of valuable gold and silver ore, is sent to Great Britain to be worked.

The remoteness of California from extensive manufacturing districts, and the active demand of its population for the various products of art, has led to a rapid development of manufactures within its own limits, hence, at the period of the last census, it ranked in this department of industry before any of the Southern or Western States, except Ohio. The production of heavy or bulky articles receives most attention; the building of machinery, in particular, being quite large. Salmon and white-fish abound in the inland waters. California is also to some extent concerned in the Pacific whale-fisheries.

The commerce is as yet chiefly with the eastern part of the United States, but the foreign trade is important, and

is steadily increasing. Petroleum must be classed among the natural resources of California, oil having been "struck" in the southern part of the country, in the Mattole region. The first well bored yields about twenty barrels per day.

The chief cities are :—

	Pop. in 1860.	Characteristics.
San Francisco.....	57,000.....	Chief commercial port on the Pacific coast; immense exportation of gold; also large exportation of flour, potatoes, etc.; ship and boat-building, and various other important manufactures; extensive works for assaying and refining precious metals; branch of United States Mint; United States marine hospital; United States navy yard.
	Est. pop. in 1866. 120,000	
Sacramento	14,000.....	State capital; principal depôt for the mining region of the Sacramento valley; fine market-gardens; large river commerce.
Stockton.....	16,000.....	Chief market of the mining region of the San Joaquin Valley; head of large internal navigation; State hospital, and asylum for the insane.
Marysville	16,000.....	Chief town of Northern California; large river commerce and trade with northern mines.

OREGON.

In 1778, the celebrated navigator, Captain Cook, sailed along the shores of Oregon. In 1791 the waters of the Columbia River were discovered by Captain Gray, of Boston. An exploring party was sent out in the year 1804 by the United States, commanded by Lewis and Clark, who

wintered in 1805-6 at the mouth of the Columbia. From this period the coast was a great resort of both English and American fur traders. In 1811 a trading post was established at the mouth of the Columbia River by the American Fur Company, who named it Astoria. For some time a Provisional Territorial Government existed, but the boundary remained unsettled until the treaty with Great Britain in 1846, when the 49th parallel was adopted. It was formally organized as a Territory in 1848; was divided in 1853 on the 46th parallel, the northern portion being called Washington, and the southern Oregon. In 1857 a State Constitution was adopted, under which it was admitted in 1859. Area about 95,274 square miles. Population, 52,465. State Capital, Eugene City.

The coast of Oregon, viewed from the sea, is like that of California, stern and rockbound, excepting that while in the latter region the nearer mountains follow the line of the shore, in Oregon they approach the ocean at a great angle. The lower or Pacific country occupies an area of from 75 to 120 miles wide, in which lie the great valleys of Willamette, Umpqua, and Rogue Rivers. The country is principally mountainous, some narrow strips of country lying around the coast between the mountains and the sea are very rich and productive, but the difficulty of communication has hitherto retarded their settlement.

The greater portion of Oregon is sterile and unfit for cultivation, yet the Willamette and other valleys are unsurpassed in fertility. The agricultural interest of these valleys has received a great stimulus from the requirements of the mining population of California. The Willamette Valley is from 30 to 40 miles wide, and 120 miles long, and is a beautiful fertile and well watered plain, with a soil of gravelly clay, mixed with loam. In some places the land is marshy, but never wet. The vegetation consists of

indigenous grasses, a number of flowering plants and ferns. The western division of Oregon is covered with dense timber, chiefly fir, spruce, and hemlock. In the southwestern portion there are some considerable forests of white cedar. The climate here, as on all the Pacific coast, is milder than in the corresponding latitudes near the Atlantic; the winters are comparatively brief, and the snows, when snow falls at all, are very light. It approaches closely to that of England, and, as a rule, those plants and animals which do well in Britain will prosper in Oregon. Gold is found in various parts of southern Oregon, and silver, lead, and copper in the Cascade Mountains; during a period of nine years the amount of gold obtained was valued at 963,458 dollars. Coal deposits of great value have been discovered with alternate layers of gypsum, and from the surveys which have been made it is believed that an inexhaustible supply of both can be obtained.

Its inhabitants are principally emigrants from the older States. The Indian population is comparatively small; the eastern part is frequented by the Shoshones. Agriculture and stock-raising are pursued in most of the settlements with great success, the staples being wheat, hay, and potatoes. Corn is a less important product, owing to its growth being checked by the prolonged drought and by the cool night of summer. The orchard fruits are exceedingly abundant and of excellent quality, particularly apples and plums.

In a State so recently and sparsely settled as this, saw-mills and grist-mills are of course the chief manufacturing establishments; considerable capital, however, has been invested in factories for coarse woollen goods, and in machine shops, breweries, and distilleries. A large quantity of flour, apples, cheese, butter, salted salmon, salted meats, and coal are exported, and from 15,000 to

20,000 head of horned cattle are annually driven to California. Salmon is abundant in the Columbia River, the fishing being done chiefly by Indians. The salmon fisheries in most of the rivers are excellent. Within the last few years, game, especially fur-bearing animals, has considerably lessened. Buffaloes are taken upon the plains east of the Blue Mountains. The commerce consists chiefly in the exchange of sawn timber, farm products, furs, and gold for manufactured goods and tropical products.

The chief towns are:—

Pop. in 1860.	Characteristics.
Portland .....1,400.....	Head of ship navigation on the Willamette River; chief commercial town; State penitentiary.
Salem—	Late capital; centre of a rich agricultural region; steamboat traffic; fine water power; various manufactures; oldest university on the Pacific coast of the United States.
Jacksonville.....—	Inland trade; vicinity of gold mines.
Oregon City.....—	Vicinity of fine timber land; falls on the Willamette River; superior manufacturing facilities; grist-mills and saw-mills.

NEVADA

Was organized as a Territory in March, 1861, and admitted as a State by proclamation of the President in October, 1864. Area, 80,000 square miles. Estimated population in 1866, 60,000. State capital, Carson City.

Although situated in the great basin, separated from the navigable waters of the Pacific by the snow-capped Sierra, and from the navigable waters of the Missouri by

the Rocky Mountains and a thousand miles of uninhabited country, this State has risen during the last few years from the condition of a barren waste to a highly prosperous position. It is one of the richest States in the Union in its mineral resources, no region in the world having so great an abundance of argentiferous ores. Her mountains of silver yield up their treasures at the touch of the enchanter, and it is the wonderful mineral wealth, vast beyond comparison, which has summoned, as if by magic, an energetic population to occupy and adorn spots, which a few years ago could boast no more imposing habitation than an Indian wigwam. In 1862 a contribution of \$20,226 was sent to the Sanitary Commission in eight massive silver bars, five of which weighed 111lbs. each, indicating the great wealth of so young a State as well as the liberality of the population. Quicksilver, lead, and antimony are also found in great abundance.

The surface of Nevada is mountainous, the average elevation of its valleys is about 5000 feet. Some of the peaks of the Humboldt Mountains are 11,000 feet in height. The land to a great extent is barren, though in the vicinity of the mountains there are many fertile valleys and extensive grassy tracts well suited to pasturage. Nevada possesses a healthy climate. The winters are of moderate length and severity, and no rain falls during six or eight months out of the twelve. The agricultural resources have not been yet developed to any great extent, indeed with the exception of a few fertile spots here and there, the country, unless artificially irrigated, is incapable of cultivation. In the valleys stock-raising is profitably pursued.

Statistics of the total yield of the mines have not been kept. It is authentically stated that the present daily average from Virginia City alone is about \$15,000 (£3000)

in bullion. The Gould and Corry mine, discovered in 1859, is calculated to have produced up to 1866 over \$15,000,000 (£3,000,000). The yield of gold during 1861-2 amounted to \$53,846. Much of the ore mined is of surprising richness, specimen tons assaying in some cases \$3000 to \$5000, but the average of the Washoe district does not exceed \$65 per ton, and that of the Reese River about \$150. The returns for 1864 show that the Washoe district with a population of 20,000 produced \$24,000,000 of silver. The total exportation for the same year was \$30,000,000 (£6,000,000). The following statistics show the extraordinary capabilities of the principal mines. The yield of the Gould and Corry mine for the year ending November 27th, 1865, was 12,948 tons, valued at \$38.14 per ton, and amounting to \$493,816.72. The yield of the Chollar-Potosi mine for the same period was 12,509½ tons of ore, valued at \$30.75 3-5 per ton, amounting to \$884,742.10. The Savage yielded 8,036 tons, valued at \$36 per ton, and amounting to \$343,404. The Ophir yielded 3000 tons, valued at \$18.33 1-3 per ton, and amounting to \$55,000. The Mexican yielded 1794 tons, valued at \$17.92 2-5 per ton, amounting to \$32,119.81. Total number of tons extracted, 32,285½, amounting to \$279,101.68 from those five mines. A basin of pure salt, five miles square, has lately been discovered. On the Hemaess Pass has been found a large vein of native iron mixed with small quantities of gold and silver.

The chief cities are:—

Pop. in 1865.	Characteristics.
Virginia City ...about 15,000.....	Chief city of Western Nevada; centre of Washoe mining region and commerce.
Austin City 6,000.....	Centre of the Reese River district; important commercial interests.

COLORADO

Was organized as a Territory in 1861, from parts of Kansas, Nebraska, and Utah, and applied for admission as a State in 1866. Area, 106,475 square miles. Population, 80,000, besides Indians. State capital, Golden City.

It is intersected north and south by the Rocky Mountains. The eastern half is one vast plain, destitute of timber, with a fertile soil, and divided by many streams. The plains are covered with rich nourishing grass, capable of sustaining millions of cattle. The western half is high tableland, timber being abundant on the slopes of the mountains. "The scenery," says a recent writer, "is the grandest that can be conceived. Two noted mountains, Pike's Peak and Long's Peak, rising to the height of three miles, lift their snowy heads into the heavens; and a circular range of snow-covered mountains reaches from one of these vast spurs to the other; the whole forming a natural amphitheatre, the diameter of which is 150 miles. Strawberries and raspberries flourish at an altitude of two miles; and, as I was assured again and again, strawberries can be taken with one hand and snow with the other. Many of the most delicate and beautiful flowers come right up through the snow."

The mineral resources of Colorado are opening up very advantageously to operative capital. The Colorado metals run in beds, mixed with quartz and pyrites, necessitating all the appliances of underground mining, crushing-mills, etc., to render the ores available. This will deter adventurers, to some extent, from settling, but it will call in heavy capital, will raise up large communities, will compel large cultivation of the rich valleys, and thus render the Territory, with its magnificent climate, one of the best of regions for the enterprising settler. The mineral deposits

are principally of silver, gold, copper, lead, and iron. There are also vast limestone-quarries, and an extensive bed of marble. Immense beds of coal have been discovered at the foot of the mountains. Gypsum-beds, also, exist; and mineral springs, alkaline, sulphurous, and chalybeate—most of them so highly charged with carbonic acid as to be designated “boiling” springs. Governor Gilpin, in his report of August 8, 1863, says, “Gold exists in Colorado in inexhaustible quantities. Undoubtedly the State is unequalled in capability of realizing mineral wealth.” The United States Commissioner thus speaks of the mines:—“Quartz that yields \$12 per ton will pay in favourable localities; but there are veins now worked that yield from \$20 to \$500 per ton. Mines that barely paid at the surface are yielding enormous profits at a depth of 150 and 200 feet.” The returns of the Philadelphia mint show that Colorado is at present second only to California in the amount of gold coined there, the State having furnished for coinage nearly four times as much gold as any other one of the new States or Territories. The receipts up to 1865 amounted to \$80,000,000. Works are erecting at Golden City for the manufacture of railway bars. Extensive mines of iron ore have been discovered there, which will be worked by eastern capitalists, and promise to yield great wealth.

The climate of this elevated country is remarkably healthy and invigorating, while the soil is rich and productive; being capable of producing, by the aid of irrigation, corn, wheat, barley, potatoes, oats, turnips, and every kind of vegetable, and of most superior quality. Agriculture and grazing receive some attention in the valleys. The pasturage in many sections is unsurpassed; the grass being exceedingly nutritious, and the dryness of the climate causing it to cure, or become hay, while stand-

ing in the field—so that the out-door supply of fodder is abundant through nearly the whole winter.

The chief towns are:—

	Pop. in 1880.	Characteristics.
Denver City	.....5,000.....	Metropolis of Colorado; extensive commerce with the mining regions; various manufactures.
Colorado City	.....1,500.....	Centre of mining region.

THE TERRITORIES.

WASHINGTON, MONTANA, IDAHO, DAKOTA, UTAH, NEBRASKA,
ARIZONA, NEW MEXICO, AND THE INDIAN TERRITORY.

(For Government, see Chapter IV.)

These Territories embrace an extent of country containing over a million of square miles, and many of them possess mineral treasures of incalculable value, whilst others have large agricultural resources. The opening of the Pacific Railway (see RAILWAYS) will add greatly to the value of this domain. White population in 1860, 220,149, in 1866 over 300,000.

WASHINGTON.

This Territory was taken from the northern part of Oregon, and occupies the extreme north-western portion of the Union. It was organized by Act of Congress in 1853, and is principally settled by emigrants from the Northern and Western States. Estimated area, 70,000 square miles. Population, about 15,000. Capital, Olympia. The western section is heavily timbered, and one of the chief sources of its wealth is the utilization of the immense forests of fir, spruce, and cedar. The eastern section consists of fertile prairies, which have attracted many settlers. The forests abound in elk, deer, and other noble game. Wild fowl, also, of many varieties, are plentiful; and in no part of the world are finer fish to be had—cod, salmon, herring, and halibut being in abundance. The rivers are rapid

mountain streams, replete with picturesque beauty, in bold, rocky cliffs, precipices, and in charming cascades.

The soil is exceedingly varied. The well-watered valleys in the west are of superior fertility; but most of the Territory east of the Cascade Mountains is better suited to pasturage than tillage, although tolerably well interspersed with productive lands. The western and north-western part of the plain of the Columbia is dry and barren. Little is known of the mineral resources of this Territory. Gold, silver, lead, and copper ores are, however, found, and iron is known to exist in several localities. Bituminous coal of a superior quality is also found on the borders of Puget's Sound. The Indian population is probably not far from 18,000, comprising numerous tribes. The white inhabitants are rapidly increasing.

The principal farm products are wheat, oats, barley, and rye. Wheat is grown in nearly all parts of the Territory, and the yield is generally good. All the grasses that have been tried have been found to flourish exceedingly. Fruits, with the exception of peaches, thrive well; and all varieties of berry grow in abundance. Spars from the forests are shipped in great quantities to Asia and Europe. Throughout the entire Territory there are extensive grazing grounds. The farmers usually turn their stock into the commons, and provide neither food nor shelter for them. When beef is wanted, they go into the woods and shoot an ox down, be it June or February.

The Indians near the coast, as well as more or less of the white settlers, are much engaged in fisheries for whale, salmon, oysters, etc. Those in the interior are chiefly employed in hunting, and raising cattle and horses. The facilities for the latter pursuit are admirable, the dryness of the climate and limited fall of snow, east of the Cascade Mountains, admitting of pasturage throughout the winter.

Some of the tribes have acquired much property, single Indians owning herds of from 1000 to 4000 stock. The Indians are, however, comparatively few in number, and nearly all the tribes have been located on small reservations, in order that they may be more easily controlled.

The future commercial importance of Washington is plainly indicated by the superior facilities which it enjoys for communication across the continent, and the fact that its excellent harbours are nearer to the great marts of Asia than those of any other of the States.

The chief towns are :—

Pop. in 1860.	Characteristics.
Olympia .....500?.....	Capital of the Territory ; market of a fine farming region.
Whatcom.....500?.....	Market of a rich agricultural region; trade with British Columbia.

MONTANA.

This Territory was organized by Act of Congress in 1864. Area, 201,373 square miles. Population in 1865, about 30,000. A great portion of this region is susceptible of cultivation; although forming in part the northern limit of the United States, the climate is comparatively mild and remarkably healthy. "I estimate," says ex-Governor Stevens, "that in the valleys on the western slopes of the Rocky Mountains, and extending no farther than the Bitter Root range, there may be some 6000 square miles of arable land, with good soils ready for occupation and settlement. The numerous mountain rivulets tributary to the Bitter Root River, that run through the valley, afford excellent and abundant mill-seats, and the land

bordering these is fertile and productive, and has been proved beyond doubt to be well suited to every branch of agriculture." The Indian tribes are numerous, but generally peaceably inclined. The proposed line of the Northern Pacific Railway will cross the Rocky Mountains through one of the mountain passes in this Territory. Gold is found in numerous localities along the different ranges of mountains, as well as in the beds of the streams flowing into the Columbia and Missouri Rivers. Of the gold mines, Mr. Hall, in his "Guide to the Great West," says:—

"The mines of the Deer Lodge and its tributaries are in extent 100 miles, and pay from \$10 to \$50 per day to the hand. Gulch diggings, in the vicinity of Bannock City, have a total length of 30 miles, and pay \$8 to \$40 per day. Gulch diggings, in the vicinity of Virginia City, are in length 86 miles, and pay \$10 to \$200 per day to the hand. Prickly Pear and its tributaries pay from \$8 to \$100 per day, and are 147 miles in extent. Yellow-stone, lately opened near its source, 39 miles in extent, pays \$10 to \$40 per day. Here is a total of 402 miles of placer or gulch diggings being wrought at this time (1865) with wonderful results. It is estimated that at least \$30,000,000 (£6,000,000) per annum will be taken from the Gulch mines alone."

IDAHO.

This Territory, lying on the west side of the Rocky Mountains, was organized by Act of Congress in 1863. Area, 125,000 square miles. Population in 1866, about 30,000. Capital, Idaho City.

The very recent and rapid settlement of Idaho, com-

menced within two or three years past, has grown out of the gold discoveries in the neighbouring British possessions. These discoveries attracted thousands of adventurers from California, who soon afterwards pushed their explorations towards Eastern Oregon and Western Idaho. From that period to the present, a steady and increasing tide of emigration has set thitherward, and the resources of the land are being daily revealed and utilized, both in its mineral stores and its agricultural capacities. Settlements are rapidly growing up, roads are being constructed, the waters are navigated, schools and churches are appearing, with all other adjuncts of permanent and progressive civilization.

Gold has been discovered on nearly all the tributaries and head-waters of the Missouri and Yellow Stone rivers, and still farther north, reaching to and going beyond the national boundary. Platina has been gathered in small quantities from the streams by the Indians. Copper and iron exist in abundance, and salt is plentiful in many localities. Coal also is found on the Upper Missouri and Yellow Stone, and has been discovered upon the Pacific slope of the Rocky Mountains. The higher mountain ranges of this region are bleak and barren, but the lower hills are generally well wooded, and the soil of the valleys productive. The whole is watered by numerous streams and springs, the former of which by their rapid flow afford extensive water-power, which is of great value for driving mills, and otherwise aiding in separating the rich mineral deposits from the sands and rocks with which they are intermixed. The climate in the valleys is mild and salubrious, but upon the plains and hills it is cold, and the country is subject to deep snows.

DACOTAH.

This Territory was organized by Act of Congress in 1861, set off from the western portion of Minnesota when that Territory became a State. It is drained by the Missouri River on the south, and by the Red River of the North, emptying into Hudson Bay. Area, 152,000 square miles. Capital, Yankton. Population in 1865, estimated at 9000 whites, and a large number of Indians of different tribes.

Being easily accessible by the Missouri River, which runs from the south-east to its north-western corner, and bounded on its entire north-eastern line by the Red River of the north, this Territory offers unusual facilities for agricultural and grazing operations. The buffalo and other wild animals are found in great abundance. Large quantities of valuable furs and peltries are obtained; and recently indications have appeared of the existence, in the Black Hills, 300 miles west from Yankton, of good supplies of gold, iron, and coal.

The climate of Dacotah is healthful and genial, and the soil is well suited to agricultural and grazing purposes, being rich in the yield of grain, fruits, and vegetables.

UTAH.

This Territory was organized by Act of Congress in 1850. It is included in the "Great Basin of North America," west of the Rocky Mountains. Area, 100,382 square miles. Population in 1865, 93,000. Capital, Great Salt Lake City.

The country is for the most part mountainous, and the valleys can only be cultivated by irrigation. The southern

part has been but little explored. So far as is known, the surface east of the Wahsatch chain includes numerous broad plains; but is considerably diversified with mountains, valleys, and abrupt ravines. West of the Wahsatch it is more generally level. Wooded tracts are rare, except upon the mountains. Drought and sterility prevail in many parts. In the hollows of the Great Basin the soil is frequently covered with a saline or alkaline crust. The accumulation of salt in Great Salt Lake is such as to render it untenable by any living thing. The surrounding valley, however, is the best watered and most fertile region of the Territory. The soil is formed principally of mountain washings, consisting of gravelly loam, well adapted to the growing of wheat and other cereals. The climate, considering its elevation and distance from the sea, is remarkably mild and uniform; the summers being warm and dry, the winters mild and open; fevers and pulmonary complaints are unknown. Though Utah has no great claim to be considered a mining country, yet gold and silver are found in considerable quantities. The yield of the former, from 1860 to 1863, being \$100,000.

The Indian population is estimated at about 20,000. The whites are for the most part emigrants from Europe. They belong chiefly to the singular sect termed Mormons, one of the leading features of whose social system is polygamy.

Agriculture is practised, with the aid of irrigation, in the valleys of Great Salt Lake and of several of the rivers. Pasturage receives much attention. Wheat is the great staple, and in good seasons the average yield is from 60 to 70 bushels per acre. Vegetables grow to an enormous size. Figs, grapes, apples, pears, peaches, apricots, currants, are produced in abundance, and are of superior quality. A considerable quantity of cotton was exported in 1865.

The remoteness of this region from thriving commercial marts has led to a noteworthy development of manufactures for the supply of its own internal wants. Utah is the thoroughfare of considerable overland commerce, and its trade with passing caravans is important.

The chief towns are :—

	Pop. in 1866.	Characteristics.
Great Salt Lake City	...17,000.....	City of the Mormons; principal station on the overland route through South Pass or Bridger's Pass to Nevada and California; seat of considerable trade and some manufactures.
Provo	— ?	Large water-power; various manufactures; valuable trout-fishery in the neighbouring lake.
Ogden.....	1,500.....	Market of a fine grazing and agricultural region.

NEBRASKA.

This Territory, organized by Act of Congress in 1854, was mostly settled by emigrants from the Northern and Western States. The Nebraska, or Platte River, runs through the middle of the State from west to east. Area, 76,000 square miles. White population in 1860, 28,842; in 1866, about 50,000. There are various roving tribes of Indians, who subsist by hunting the buffalo and other game.

The surface of Nebraska is chiefly a gentle rolling prairie, with deep ravines and well-timbered bottom-lands along the rivers. The climate is favourable to agriculture, and the atmosphere mild and dry. The soil is easily cul-

tivated, and produces all the grasses without irrigation. Vegetables thrive well, and grapes of the finest quality are produced. For grazing purposes the wild grass, which grows in profusion, is peculiarly suitable, cattle and horses fattening quickly upon it. On the rushes of the bottom-lands stock are often kept the whole winter, and are found to fatten without other fodder. Nebraska is well adapted for raising sheep, and stock in the newly settled portions are herded without fencing, a matter of importance to settlers of limited means. There is no part of the United States where sheep are so healthy, or do so well; and probably the country is unsurpassed by any in the world for wool growing.

Its mineral resources are now being rapidly developed; and its fertile valley lands are being turned to such an account, that the growth of the country is extremely promising. Iron and coal are believed to exist in abundance, and timber and stone for building purposes are in sufficient quantities.

ARIZONA.

This Territory was organized out of the western half of New Mexico in 1863. It is an elevated mountainous region, and excepting in the vicinity of its two principal rivers, the Colorado and the Gila, has few valleys in which cultivation is possible. The whole region above the lowland is of volcanic origin. Area, 120,912 square miles. Population in 1866 about 17,000.

The locality of this broad area pre-supposes great metallic wealth. The general direction of the mountains and veins is north-west and south-east, and there are

numerous parallel ranges which form long valleys in the same direction. These and the broad level bottoms of the rivers may be easily and cheaply irrigated by artesian wells, under which treatment the soils return a large yield, producing, so far as tested, every variety of grain grass, vegetables, and fruits. While it has some barren and desolate country, no mineral region belonging to the United States, not excepting California, has in proportion to its extent more arable, pastoral, and timber lands. In the southern portion there are many glades and vales and wide-spreading plains, suitable for cultivation; and while the mining interests are the chief inducements to settlers, agriculture and stock-raising receive considerable attention. During 1865 nearly 100,000 bushels of grain were raised in the valleys. A number of clear streams are prolific in trout and other fresh-water fish. The climate, considered in either its relations to health and longevity or to agricultural and mining labour, is unrivalled by any in the world. Disease is almost unknown, and the warmest suns are less oppressive and enervating than those experienced in the Middle States. The proportion of fine weather is greater than in any other part of the world.

The wealth of Arizona is but just becoming known. The Territory is literally veined with the precious metals. The mines of gold, silver, and copper are extensive, well located, well defined, and, so far as tested, exceedingly rich. The copper mines on the Minibres River yield large quantities of ore, which contains 95 per cent. of copper. The Commissioner of the General Land Office, in his Report to Congress in December, 1863, says of this region, that it "is believed to be stocked with mineral wealth beyond that of any other Territory of equal extent in the great plateau between the Rocky Mountains and the Sierra Nevada."

The population is of nearly the same character as that of New Mexico; although rapid emigration from California and other parts of the United States is rendering the Spanish element less prominent. Several of the Indian tribes are considerably advanced in the arts, and are among the best specimens of the aboriginal race to be found in America. The Apache Indians have been a serious hindrance to the growth and prosperity of Arizona, but energetic measures are being taken to subdue them.

The chief towns are:—

Pop. in 1860.

Characteristics.

Tucson.....Capital of Arizona, and seat of a thriving trade; station on the overland route between Texas and California.

TubacDepot of a rich silver and copper mining region.

NEW MEXICO.

This Territory was early settled by Spaniards, and formed a Territory of the Republic of Mexico until 1848, when it was ceded to the United States. In 1850 it was defined by Act of Congress, and provision made for its organization. Present area, 121,201 square miles. Population in 1860 (including Arizona) 83,009. Capital, Santa Fe.

Much of the eastern section is embraced in the Llano Estacado, a vast plain extending into Western Texas. The middle section comprises the valley of the Rio Grande. Although diversified by numerous ranges of mountains the

Territory contains a good share of comparatively even table-land. The climate is generally mild and dry, particularly in the south-east. It is surpassingly pure and healthy. A sultry day is rare, and the summer nights are cool and pleasant. The winters are mild with but little snow. Wheat is abundantly raised, and graminæ grass is the main sustenance for stock; the hay made from it is purchased by the Government at from \$40 to \$50 per ton. The lucern grows in abundance and is usually cut four or five times in the year. Cotton of good quality is grown in the southern part of the Territory, and the vine thrives most luxuriantly in the same region. Grapes can be bought for \$3 per bushel. All the vegetables grow well except the potato. Red and green pepper, the great staple of the country, hangs from the trees in front of nearly every house.

The civilized inhabitants are chiefly of Spanish-Mexican extraction, more or less intermixed with Indian stock. There are also numerous domesticated Indians in the Territory; besides about 20,000 who retain their tribal character, many of them warlike. Some of the tribes in the west are much superior to the average of North American savages. Agriculture receives considerable attention along the rivers, and stock-raising upon the neighbouring plains. The number of horses, mules, cattle, and sheep owned by some of the wealthy proprietors is immense. The country is rich in gold, silver, copper, and iron. Anthracite coal of an excellent quality is found near Santa Fe. The most noted manufacture is of gay-coloured woollen blankets, termed serapes, which are worn by all classes. The mechanical arts are very rude. An important caravan trade is maintained with the Western border States and with Mexico.

The chief towns are:—

	Pop. in 1860.	Characteristics.
Santa Fe	5,000.....	Capital of the Territory; important overland trade with the States and with Mexico.
Albuquerque.....	—	Chief town of a fine fruit-growing and grazing country.
Taos	—	Market of a highly-productive farming region.
Mesilla	2,400.....	Noted station on the overland mail route between Texas and California.

INDIAN TERRITORY.

This Territory was originally part of Louisiana. It is not organized as the other Territories of the United States, but certain portions of it have been granted from time to time to the Indian tribes now inhabiting it. The area is 71,000 square miles. Approximate population, 75,000.

The general appearance of the country is that of a vast plain, inclining gently towards the Mississippi River. The eastern portion alone is inhabited. It consists of a fertile prairie, interspersed with flat hills, with cotton woods, and willow woodlands bordering the streams. With these exceptions the country is bare of timber.

The various Indian tribes occupy reservations or districts defined by treaty-boundaries. These tribes maintain distinct and separate relations with the United States Government. Each has an Indian agent, or quasi consul, residing in their respective governments. These native governments are entirely distinct, each under its own constitution and laws. Their social and industrial progress

has been considerable, printing-presses and newspapers have been introduced among them. They live chiefly in villages, have churches and schools, cultivate the land with the plough, raise cotton and corn, and are abundantly supplied with horses and cattle, and manufacture their own clothing. Their surplus productions are sent down the river to New Orleans.

CHAPTER VI.

POPULATION — NATURALIZATION—SUFFRAGE—PATENT
LAWS—LEGAL INTEREST, AND USURY.

POPULATION.

THE increase of the population of the United States has been rapid beyond any previous example in history. At the Declaration of Independence (1776) the number of States was thirteen, with a population of about 3,000,000, and in 1800, when several new States had been added to the Confederacy, the population was little more than 5,000,000. During the next fifty years, there was a great advance. In 1850, when the number of States had increased to thirty-one, the population had reached 23,191,876, or 3,000,000 more than that of the kingdom of Great Britain. A striking evidence of this rapid advancement is that the increase of the inhabitants during the last ten years is greater by more than 1,000,000 of souls than the whole population in 1810, and nearly as great as the entire number of people in 1820. At this ratio it doubles every twenty-five years, and it is therefore probable that at the close of the present century the United States will possess a population of not far from 100,000,000. It is also a fair

presumption that the rate of progress will continue till the country is occupied from the Atlantic to the Pacific.

The following table shows the decennial increase to the period of the last census, 1860, with the ratio of increase:—

1790..	3,920,827		
1800..	5,305,937..	Ratio of increase,	35·02 per cent.
1810..	7,239,814..	„	36·45 „
1820..	9,638,131..	„	33·13 „
1830..	12,866,020..	„	33·40 „
1840..	17,069,453..	„	32·67 „
1850..	23,121,876..	„	33·97 „
1860..	31,445,080..	„	35·58 „

This shows an average decennial increase of over 34 per cent. in population through the seventy years, from the first to the last census.

The two periods from 1800 to 1810, and from 1840 to 1850, were marked by an addition of territory which materially increased the population. In the first mentioned period Louisiana was purchased from the French, and in the last mentioned, Texas, New Mexico, and California, were admitted into the Union. Each of these contributed largely to the population of the country.

The actual and probable future progress of the population of the United States, as shown in the preceding statement, was thus commented on by President Lincoln in his last Message to Congress:—"It is seen that the ratio of increase at no one of these seven periods is either two per cent. below, or two per cent. above, the average, thus showing how inflexible, and, consequently, how reliable, the law of increase in our case is. Assuming that it will continue, it gives the following results:—The population in 1870 will be 42,323,372; in 1880 it will be

56,966,216; in 1890 it will be 76,677,872; in 1900 it will be 103,208,415; in 1910 it will be 138,918,526; in 1920 it will be 186,984,335; in 1930 it will be 251,680,914. These figures show that our country may be as populous as Europe now is, at some point between 1920 and 1930, say about 1925, our territory, at $73\frac{1}{3}$ persons to the square mile, being of the capacity to contain 217,186,000."

The last returns show an excess of male population, presenting a marked difference as compared with other countries. While in the United States there is an excess of 730,000 males in more than 31,000,000 of people, the females of the United Kingdom of Great Britain and Ireland outnumber the males some 877,000 in a population of little more than 29,000,000.

The great excess of males in newly-settled territories illustrates the influence of emigration in effecting a disparity in the sexes. The males of California outnumber the females nearly 67,000, or about one-fifth of the population. In Illinois, the excess of males amounts to about 92,000, or one-twelfth of the entire population. In Massachusetts, the females outnumber the males some 37,600. Michigan shows near 40,000 excess of males; Texas, 36,000; Wisconsin, 43,000. In Colorado, the males are as twenty to one female; and, while in New York there is a small preponderance of females, the males are more numerous in Pennsylvania.

The following table shows the population of the States and Territories to the square mile:—

States.	1850.	1860.	States.	1850.	1860.
Alabama.....	15·21...	19·01	Georgia	17·81...	20·33
Arkansas.....	4·02...	8·34	Illinois	15·37...	30·90
California	? ...	2·01	Indiana	29·24...	39·94
Connecticut	79·33...	98·45	Iowa	3·49...	12·26
Delaware	43·18...	52·93	Kansas	— ...	1·36
Florida	1·48..	2·37	Kentucky	26·07...	30·67

States.	1850.	1860.	States.	1850.	1860.
Louisiana	11·15...	15 25	South Carolina ...	22·75...	28·98
Maine.....	18·36...	19·78	Tennessee	22·00...	24·34
Maryland	52·41...	61·76	Texas	0·89...	2·55
Massachusetts ...	127·50...	157·83	Vermont.....	30·76...	30·85
Michigan	7·07...	13·32	Virginia	23·17...	26·02
Minnesota	0·07...	2·08	Wisconsin	5·66...	14·39
Mississippi.....	12·86...	16·78	Territories.		1850. 1860.
Missouri.....	10·12...	17·54	Colorado	— ...	0·32
New Hampshire...	34·26...	35·14	Dacotah.....	— ...	0·01
New Jersey.....	58·84...	80·77	Nebraska	— ...	0·24
New York	65·90...	82·56	Nevada	— ...	0·11
North Carolina ...	17·14...	19·57	New Mexico	0·25...	0·38
Ohio	49·55...	58·54	Utah	0·08...	0·31
Oregon	0·13...	0·57	Washington	0·01...	0·06
Pennsylvania	50·25...	63·17	District.		1850. 1860.
Rhode Island.....	112·97...	133·70	Columbia	861·45	1251·33

The distribution of the general increase among the individual States of the Union is a subject of much interest. The older States may be said to be filled up as far as regards the resources adapted to a rural population in the present condition of agricultural science. The conditions of their increase undergo a change upon the general occupation of their area. Manufactures and commerce then come in to supply the means of subsistence to an excess of inhabitants beyond what the ordinary cultivation of the soil can sustain. This point in the progress of population has been reached, and perhaps passed, in most, if not all, of the New England States. But while statistical science may demonstrate, within narrow limits, the number of persons who may extract a subsistence from each square mile of arable land, it cannot compute with any reasonable approach to certainty, the additional population resident on the same soil which may obtain subsistence through the thousand branches of artificial

industry which the demands of society and civilization have created.

The three States of Massachusetts, Connecticut, and Rhode Island show an aggregate population of 1,412,851, and an area of 13,780 square miles, which gives 12,996 inhabitants to the square mile. The stated point of density was passed by these three States more than fifty years ago, and yet they go on increasing in population with a rapidity as great as at any former period of their history, their increase since 1850 being about 20 per cent.

South Carolina has gained during the decade 35,201 inhabitants of all conditions, equal to 5·27 per cent., and has made slower progress during the last term than any other Southern State, having advanced only from 27·28 to 28·72 inhabitants to the square mile. Virginia is the next lowest in the rate of increase in the list of Southern States, the gain upon her aggregate population in 1850 was 174,657, equal to 12·29 per cent. Among the States which have made the most rapid advance, we find that New York has increased from 3,097,394 to 3,880,735, exhibiting an augmentation of 783,341 inhabitants, being at the rate of 25·29 per cent. The gain of Pennsylvania has been in round numbers 595,000. Minnesota was chiefly unsettled territory in 1850, its large population as shown by the returns of 1860 is, therefore, nearly clear gain. The vast region of Texas ten years since was comparatively a wilderness; it has now a population of over 600,000, and the rate of its increase is given as 184 per cent.

Illinois presents the most wonderful example of great and continuous increase. In 1830 it contained 157,445 inhabitants; in 1840, 476,183; in 1850, 851,470; in 1860, 1,711,951. The gain during the last decade being 860,481, or at the rate of 101 per cent. So large a population,

more than doubling itself in ten years, by the regular course of settlement and natural increase, is without a parallel. The growth of Indiana in population, though less extraordinary than that of her neighbouring State, has been most satisfactory, her gain during the decade having been 362,000, or more than 36 per cent. upon her number in 1850. Michigan, Wisconsin, and Iowa have fully participated in the surprising development of the north-west. The remarkable healthfulness of the climate of that region seems to more than compensate for its rigours, and the fertility of the new soil is an inducement to contend with and overcome the harshness of the elements.

It is important to observe in the increase of the population the growing disparity between the white and coloured races. While the whites from 1850 to 1860 gained 38 per cent., the slaves and free coloured increased somewhat less, 22 per cent., and the total increase of the coloured for seventy years was but 485 per cent., against 757 per cent. for the whites. The following summary exhibits the numbers of the coloured race and their rates of increase during the last seventy years. The *rate of increase* will be seen to have been gradually diminishing.

	Free coloured.	Increase per cent.	Slaves.	Increase per cent.	Free coloured, and Slaves.	Increase per cent.
1790	59,466	...	697,897	...	757,363	...
1800	108,395	82·28	893,041	27·97	1,001,436	32·23
1810	186,446	72·00	1,191,364	33·40	1,337,810	37·58
1820	233,524	25·23	1,538,038	28·79	1,771,562	28·58
1830	319,599	36·87	2,009,043	30·61	2,328,642	31·44
1840	386,303	20·87	2,487,455	23·81	2,873,758	23·41
1850	434,449	12·46	3,204,313	28·82	3,638,762	26·62
1860	482,122	10·97	3,953,587	23·38	4,435,709	21·90

Of the occupations of the people of the United States the following is a brief summary. In 1860 there were 8,217,000 persons whose occupations were recorded; of these more than 3,000,000 were occupied in the tillage of the soil, 2,423,895 being farmers, and 795,679 farm-labourers, and 85,561 planters. Of other occupations:—

Merchants.....	numbered	123,378
Clerks	„	184,485
Labourers.....	„	969,301
Servants	„	559,908
Carpenters	„	242,958
Shoemakers	„	164,608
Miners	„	147,750
Blacksmiths	„	112,357
Teachers	„	110,469
Tailors and Tailoresses ..	„	101,868
Seamstresses	„	90,198
Apprentices	„	55,326
Painters	„	51,695
Masons	„	48,925
Coopers.....	„	43,624
Laundresses	„	38,633
Overseers	„	37,883
Railway men	„	36,567
Mantua makers	„	35,165
Other trades in which the persons engaged number under 35,000.....	} „	1,656,167

The following are the numbers of those engaged in the professions:—

Judges and Lawyers	33,980
Physicians and Surgeons	55,055
Clergymen	37,529

Civil Engineers	27,437
Public Officers	24,693
Students	49,993

Of those who were engaged in seafaring occupations:—

Boatmen	numbered 23,816
Fishermen	„ 21,905
Mariners	„ 67,360
Ship carpenters	„ 13,392

The rapid increase which has been shown in the population of the United States is due largely to emigration, which fact must not be lost sight of in comparing the increase with that of other countries. Had the increase of population since 1800 been left to its natural growth, it has been estimated that the whole white and coloured inhabitants would at this time have numbered but little more than 10,000,000. This being the case, two-thirds of the present population, or 21,000,000, are immigrants, or the descendants of immigrants. The tide of emigration from Europe to America began to set in strongly about the year 1825. It took a further and sudden rise in 1832, and again in 1847. The first period corresponds with the opening out of the north-western States, and the opportunity they afforded for obtaining land at nominal rates; the latter with the failure of the potato crop in Ireland; and for several succeeding years by the continental disturbances and the discovery of gold in California.

Since 1820, the date of the first official return, the tide of emigration has been as follows:—

In the ten years ending June 1, 1830	244,490
In the ten years ending June 1, 1840	552,000
In the ten years ending June 1, 1850	1,558,300
In the ten years ending June 1, 1860	2,707,624

Total . . . 5,062,414

The proportion of the sexes making this total was as follows:—

Males	2,977,603
Females	2,035,536
Sex not stated.....	49,275

The following table shows the nationality of the emigrants that have arrived in the United States since 1820:—

	1851 to 1860.	1820 to 1860.
From England	247,125	302,655
„ Ireland	748,740	967,366
„ Scotland	38,331	47,890
„ Wales	6,319	7,935
Additional from Great Britain and Ireland	297,578	1,425,001
<hr/> Total from United Kingdom	<hr/> 1,338,093	<hr/> 2,750,847
Italy.....	7,012	11,202
Germany	907,780	1,486,044
France	76,358	208,063
British America	59,301	117,142
Other Countries	209,670	489,116
<hr/> Total Aliens	<hr/> 2,598,214	<hr/> 5,062,414

The greater number of emigrants make New York their destination. The following table shows the number of immigrants who landed at that port from 1861 to 1865:—

	From Ireland.	From Germany.	Total.
1861.....	27,754	27,159	65,529
1862.....	32,217	27,740	76,306
1863.....	92,681	38,236	155,223
1864.....	—	53,929	185,208
1865.....	70,338	82,444	195,075

The Irish are principally established in New York, Pennsylvania, Massachusetts, Illinois, Ohio, and New Jersey; the Germans in New York, Ohio, Pennsylvania, Illinois, Wisconsin, and Missouri.

A register of the occupations of the various immigrants has not been carefully kept. Many of them were doubtless women and children, and a large proportion were without a settled occupation, and prepared to accept any that might offer.

The occupations of 3,000,000 out of the 5,000,000 that have arrived from 1820 to 1860 are as follows:—

Labourers.....	872,317	Manufacturers....	3,120
Farmers	764,837	Lawyers	2,676
Mechanics	407,524	Artists	2,490
Merchants	231,852	Masons	2,310
Servants	49,494	Engineers.....	2,016
Miners	39,967	Teachers	1,523
Mariners	29,484	Bakers	1,272
Weavers	11,557	Butchers	945
Needlewomen ..	5,246	Musicians.....	729
Physicians	7,109	Printers	705
Clergymen	4,326	Painters	647
Clerks	3,882	Millers	631
Tailors	3,634	Actors	588
Shoemakers....	3,474		

The Indians dwelling within the United States are fast disappearing. In 1850 there were 400,000; in 1856, 350,000; and the census of 1860 shows only 295,400. This is a decrease of 50,000 every five years. The proportion of decrease is steadily augmented as the path of empire takes its way westward. Not many years will elapse, at this rate, before the Indian savage will exist only in history, the prose fiction of Cooper, and the poetry of

Longfellow. The principal Indian populations are distributed as follows :—New Mexico Territory, 55,100 ; Dacotah Territory, 39,664 ; Washington Territory, 31,000 ; Utah Territory, 20,000 ; Minnesota, 17,900 ; California, 13,140 ; Kansas, 8,189 ; Michigan, 7,777 ; Nevada Territory, 7,750 ; Oregon, 7,000. In the Indian Territory there are probably about 60,000 or 70,000.

The origin of these Indian tribes has been a subject of controversy among learned men for centuries. Forged inscriptions, stones bearing mysterious characters, Erse, Ancient Greek, Phœnician, Celtiberic, and Runic, as evidences of every possible and impossible theory of American origin, have each found people credulous enough to accept and defend their authenticity, even after the authors of them have abandoned them to their fate. All the older authorities, however, agreed in assigning to the aborigines a European or Asiatic origin ; though, within the last thirty years, some distinguished ethnologists and anthropologists in America and Europe, as Morton, Agassiz, Nott, Gliddon, and others, have maintained the probability of a distinct centre of creation or development for the American Indian. The Esquimaux tribes of British and Russian America, from their strong resemblance to the nomadic races of North-Eastern Asia are, however, universally admitted to have migrated into the New World across Behring Strait.

The aborigines, with some exceptions, are robust and well-proportioned, of a bronze or reddish complexion, have black hair, long, coarse, and shining ; thin beard ; low forehead, with features varied in profile, prominent, and strongly marked. Their virtues and vices are those of savages. They are hospitable, and capable of a savage magnanimity ; but are generally vindictive, cruel, and treacherous. Intellectually they are an inferior race, al-

though some individuals have exhibited considerable natural and acquired talents.

NATURALIZATION.

It is the policy of the Government of the United States to encourage immigration, and for that end a naturalization law has been passed, affording great facilities to foreigners wishing to become American citizens. The qualifications for and mode of obtaining the privilege are substantially as follows: The applicant must have been a resident in the country for the term of five years preceding his admission, and one year within the particular State where the application is made, and must also have made a declaration of his intention to become a citizen two years previous to his application. These facts must be proven by at least one witness. The applicant must also show that he has behaved during his residence as a man of good moral character, and loyal to the Government of the United States.

If an alien who has declared his intention die before he is naturalized, his widow and children may become citizens by simply taking the oath required of all naturalized citizens to support the constitution of the United States. In this case the period of residence of the widow and children is immaterial, nor is any distinction made between minor children and adults.

In certain cases, aliens are disqualified from becoming citizens. No alien can be admitted while his country is

at war with the United States, nor can one be admitted who was proscribed by any State previous to the year 1802. The residence required by the naturalization laws is a permanent abode in the country ; and when that is established or begun, it will not be affected by a temporary absence upon business or pleasure, if the intention to keep up the residence has always existed.

Besides these general provisions, some of the individual States, chiefly the Western, have granted to unnaturalized aliens residing within their boundaries the right to hold real estate.

In addition to the laws of the Federal Government relating to naturalization of foreigners, each State possesses a code of laws determining the qualifications of citizenship and suffrage within its own limits.

The following is an estimate of the number of naturalized citizens residing in the United States, with the countries whence they have emigrated:—Ireland, 1,611,000 ; German States, 1,198,000 ; England, 430,000 ; British America, 250,000 ; France, 109,000 ; Scotland, 105,000 ; Switzerland, 54,000 ; Wales, 45,000 ; Norway, 43,000 ; Holland, 28,000 ; Turkey, 28,000 ; Italy, 10,000 ; Denmark, 10,000 ; Belgium, 9,000 ; Poland, 7,000 ; Mexico, 7,000 ; the Antilles, 7,000 ; China, 5,000 ; Portugal, 4,000 ; Prussia, 3,000 ; various countries, 204,000.—Total, 4,136,000.

SUFFRAGE.

The following are the laws of the several States on the right of suffrage. It will be seen that only six States—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Wisconsin—make no legal distinction among their citizens on the ground of colour. In New York, coloured citizens to be voters, must be owners of a freehold worth \$250. All the other States deny the right of suffrage to the negro. Indians have a right of voting in the New England States, in Michigan, Wisconsin, California, and Minnesota. Chinamen are expressly excluded in California, Oregon, and Nevada. Indiana, Michigan, Wisconsin, Minnesota, Oregon, Kansas, and Illinois admit as voters those not yet citizens. Troops quartered in a State by the United States Government, do not thereby acquire the right to vote. All the States exclude idiots, insane, convicts, and persons of notoriously bad character from the franchise.

MAINE gives the right of suffrage to every male citizen of the United States of the age of 21 years and upward, excepting Indians not taxed, having resided in the State three months.

NEW HAMPSHIRE.—Every male inhabitant of 21 years. Freehold property qualifications were formerly required for office-holders, but these are abolished.

VERMONT.—Every man 21 years of age, who has resided one year in the State, and who will take an oath to vote “so as in your conscience you shall judge will most conduce to the best good” of the State.

MASSACHUSETTS.—Every male citizen 21 years of age, who shall have paid any tax assessed within two years, or

who shall be exempted from taxation. *No person is entitled to a vote, or is eligible to office in this State, who is not able to read the Constitution in the English language, and write his name.* But this provision does not apply to any person prevented by a physical disability from complying with its requisitions.

RHODE ISLAND.—1. Every male citizen, of full age, one year in the State, six months in the town, owning real estate worth \$134, or renting \$7 per annum. 2. Every *native* male citizen of full age, two years in the State, six months in the town, who is duly registered, who has paid \$1 tax, or done militia service within the year.

CONNECTICUT.—All persons, whether white or black, who were freemen at the adoption of her Constitution (1818), and subsequently every white male citizen of the United States, of full age, resident one year in the State, and six months in the town, bearing a good moral character, and able to read and write.

INDIANA.—Every white male citizen of the United States, of full age, and six months resident in the State, and every white male of foreign birth and full age, who has resided one year in the United States, six months preceding the election in the State, and who has declared his intention to become a citizen. No negro or mulatto has the right of suffrage.

ILLINOIS.—Every white male citizen of full age, residing one year in the State, and every white male inhabitant who was a resident of the State at the adoption of the Constitution.

MISSOURI.—Every citizen who has resided in the State one year, and county three months. The Free State Constitution of 1865 excludes the blacks from voting.

MICHIGAN.—Every white male citizen, resident three months in the State, and six days in the town; every

white male inhabitant residing in the State June 24th, 1835; every white male inhabitant residing in the State January 1st, 1850, who has declared his intention, etc., or who has resided two and a-half years in the State, and declared his intention, and every civilized male Indian inhabitant, not a member of any tribe.

IOWA.—Every white male citizen of the United States, of full age, resident six months in the State, sixty days in the county.

NEW YORK.—Every male citizen of full age, who shall have been ten days a citizen, resident one year in the State, four months in the county, and thirty days in the district. But no man of colour shall vote unless he has been three years a citizen of the State, and for one year the owner of a freehold worth \$250, over incumbrances, on which he shall have paid a tax, and he is to be subject to no direct tax unless he owns such freehold. Laws have been passed, excluding from the suffrage persons convicted of bribery, larceny, or infamous crime, also persons betting on the election.

NEW JERSEY.—Every white male citizen of the United States, of full age, residing one year in the State and five months in the county.

PENNSYLVANIA.—Every white freeman, of full age, who has resided one year in the State and ten days in the election district, and has within two years paid a tax, except that a once qualified voter returning into the State after an absence which disqualifies him from voting, regains his vote by a six months' residence, and except that white free citizens under 22 and over 21 vote without paying taxes.

OHIO.—Every white male citizen of the United States, of full age, resident one year in the State. But the courts of Ohio having held that every person of one-half white

blood is a white male citizen within the Constitution, and that the burden of proof is with the challenging party, to show that the person is more than half black, negroes are often allowed to vote.

WISCONSIN.—Every male person of full age, resident one year in the State, and being either: a citizen of the United States; an alien who has declared his intention; a person of Indian blood who has been declared a citizen by Act of Congress; civilized persons of Indian descent not members of any tribe. By a recent decision, negroes are admitted to vote on equal terms with white citizens.

CALIFORNIA.—Every white male citizen of the United States (or of Mexico who shall have elected to become a citizen of the United States under treaty of Queretaro) of full age, resident six months in the State and thirty days in the district.

MINNESOTA.—Every male person of full age, resident one year in the United States and four months in the State, and being either: a white citizen of the United States; a white alien who has declared his intention; civilized persons of mixed white and Indian blood, or civilized Indians certified by a district court to be fit for citizenship.

OREGON.—Every white male citizen of full age, six months a resident in the State, and every white male alien, of full age, resident in the United States one year, who has declared his intention, may vote, but "no negro, Chinaman, or mulatto."

KANSAS.—Every white male adult resident six months in the State and thirty days in the town, who is either a citizen or has declared his intention of becoming one.

WEST VIRGINIA.—Every white male citizen 21 years of age, resident one year in the State and thirty days in the county.

NEVADA.—The law on the right of suffrage is similar to that of Oregon.

COLORADO.—Every white male citizen of full age.

DELAWARE.—Every free white male citizen of the age of 22 years, who has resided one year in the State and the last month thereof in the county, and who has within two years paid a county tax, assessed at least six months before the election. Every free white male citizen over 21 and under 22 may vote without paying any tax. The legislature may impose forfeiture of the right of suffrage as a punishment for crime.

MARYLAND.—Every free white male person of 21 years of age, or upward, who has resided one year in the State, six months in the county, and is a citizen of the United States.

VIRGINIA.—Every white male citizen of 21 years, who has resided two years in the State and twelve months in the county, except non-commissioned officers, soldiers, seamen, or marines in the United States service, or persons convicted of bribery, or some infamous offence.

NORTH CAROLINA.—All freemen 21 years of age, living twelve months in the State, and owning a freehold of fifty acres for six months. No free negroes, free mulattoes, or free persons of mixed blood, descended from negro ancestors to the fourth generation inclusive, can vote for members of the Senate or House of Commons.

SOUTH CAROLINA gives the right of voting to every person who has the following qualifications:—He shall be a free white man who has attained the age of 21 years, and is not a non-commissioned officer or private soldier in the army, nor a seaman or a marine of the navy of the United States. He shall, for two years preceding the election, have been a citizen of the State, or, for the same period, an emigrant from Europe, who has declared his

intention to become a citizen of the United States. He shall have resided in the State at least two years preceding the election, and for the last six months in the district.

GEORGIA.—Every free white male citizen of the State, who shall have attained the age of 21 years, and shall have paid all taxes which may have been required of him, and shall have resided six months in the county and two years in the State.

KENTUCKY.—Every white male citizen of the age of 21 years, who has resided two years in the State, one year in the county, and sixty days in the precinct.

TENNESSEE.—Every free white man of the age of 21 years, being a citizen of the United States, and for six months a resident of the county. All persons of colour who are competent witnesses in a court of justice against a white man may also vote.

LOUISIANA.—Every free white male who has attained the age of 21 years, and has resided twelve months in the State, and six months in the parish.

MISSISSIPPI.—Every free white male person of 21 years of age, who is a citizen of the United States, who has resided one year in the State and four months in the county.

ALABAMA is the same as Mississippi, with the substitution of three months' residence in the county.

FLORIDA.—Every free white male person of 21 years of age, a citizen of the United States, two years a resident of the State and six months of the county, duly enrolled in the militia, and duly registered.

ARKANSAS.—Every free white male citizen of the United States, 21 years of age, who shall have resided six months in the State.

TEXAS.—Every free male person who shall have attained the age of 21 years, a citizen of the United States, one

year a resident of the State, and six months of the county, Indians not taxed, Africans and the descendants of Africans, excepted.

THE PATENT LAWS.

The subject of patents for inventions received the early attention of Congress after the adoption of the Federal Constitution, and in 1791 was passed the first act "to promote the progress of the useful arts." This, and all subsequent acts relating to patents, has recognized the natural rights of the inventor, and aimed to reconcile private rights with the welfare of the State, which reconciliation is the perfection of all legislation.

Letters patent are granted for any *new* and *useful* invention or discovery to the actual first inventor, his assignees, executors, or administrators. They are granted alike to citizens and aliens for the term of seventeen years from the date of issue. An invention, on which a foreign patent has been obtained is patentable in the United States at *any* subsequent period, provided the same has not been generally introduced into that country before the application; but such patent will expire at the end of seventeen years from the date of the foreign patent. There is a strict examination to determine the utility and novelty of the invention.

No patents of importation nor certificates of addition are allowed. Patents of designs and caveats—a kind of provisional protection—are granted to citizens, but not in any case to aliens residing abroad. Patents may be reissued at any period to remedy defects in the claims, or other parts of the specification. No extensions are

allowed on patents secured under the act of 1861; and alien patentees must carry their invention into practice in the United States within eighteen months from the date of issue.

The inventor, by himself or authorized agent, must present a written petition to the commissioner of patents, accompanied by a specification and oath, with two sets of drawings, and also a model, where the nature of the invention admits of such an illustration. When the invention is a composition of matter, a sample of the composition and of each of the ingredients must be furnished. The size and character of the drawings and model are prescribed by the rules of the Patent Office. The specification and drawings must all be signed by the inventor, his executors, or administrators, and such signature attested by two witnesses.

The Government fee for each patent for the entire term under the act of 1861 is \$35, and the agency charges vary, according to the nature of the invention, and the difficulty in obtaining the allowance of the patents; but it may be safely said that these patents, as a rule, are cheaper than those of European States, costing for seventeen years hardly one-tenth as much as a patent in the United Kingdom for a shorter period, while "patent rights" in the United States are far more saleable and valuable.

During the year 1865 there were received at the Patent Office over 12,000 applications for patents; and 6616 patents were issued, and 1538 caveats were filed. The number of applications exceeded by nearly forty per cent. the number filed in any preceding year, and the number of caveats filed exceeded those of any previous year by more than seventy-five per cent. The number of patents issued exceeded those issued in 1864, the highest previous year, by more than thirty per cent.

The United States Patent Office at Washington contains nearly 50,000 models pertaining to patent inventions, all of which are open to public inspection and examination, together with the drawings and specifications.

MARRIAGE LAWS.

In the United States marriage is, by law, only a civil contract; magistrates, equally with clergymen, have a right to solemnize it; but it is the prevailing practice, as in all Protestant countries, to have it performed by a clergyman, with religious observances. In all the States certain marriages are prohibited, and would of course be void—as those between parties within a certain near lineal consanguinity, and those between parties within the age of consent, which, for the most part, is fixed at fifteen for the man and ten for the woman. In many of the States there is now a provision that a marriage duly solemnized to all appearance shall not be void through the non-observance of any formality, if it be consummated with a full belief on the part of either or both of the parties that they were lawfully married. Contracts to marry at a future time are recognized by law, and actions for the breach of them are common. The rules of law relating to these are peculiar. The promises must be reciprocal, and the woman is bound to them as much as the man. The precise words, time, and manner, often beyond proof, are not indispensable, for direct and precise testimony is not demanded. This contract, like every other, may be made on condition; and if the condition be reasonable, the law will respect it. Actions for breach of promise do not survive either the

promisor or promisee. Regulations have been made by law in most of the States for the due solemnization and proof of marriage; but when such provisions have not been made, the contract is under the government of the English common law.

Second marriages, where the former husband or wife are living, are null and void, with the following exceptions:—Absence of the first husband or wife for five years, without the residence being known to the party marrying a second time; or deliberate absence from the United States for a like period; or divorce, except for cause of adultery, in the party marrying a second time.

The law of divorce is different in the various States. In all adultery of either party is a sufficient cause. In New York imprisonment for life is considered as a civil death, and the husband or wife of such imprisoned person is at liberty to marry again. Imprisonment for a less term is held merely to suspend civil rights for a time, and does not abrogate them. In Massachusetts, Maine, and New Jersey, wilful desertion for five years—in Indiana and Missouri desertion for two years, cruel and inhuman treatment by the husband, or his habitual drunkenness for the same period—in Vermont imprisonment in State prison for three years—in Ohio wilful desertion or habitual drunkenness for three years—in Pennsylvania wilful desertion for two years—in Connecticut wilful desertion for three years, or seven years' absence without being heard of, also constitute sufficient grounds for divorce.

TEMPERANCE LAWS.

The laws at present in operation throughout the United States, designed to abate intemperance and the numerous social evils flowing from that vice, are divisible into three classes—those that forbid the sale of intoxicating liquors on the Sabbath; those that interfere more or less stringently with the retail sale of intoxicating liquors; and those that are framed on the model of the celebrated Maine Law of 1851, and forbid all sale of such liquors other than for medicinal, sacramental, and scientific purposes. A Sunday law prevails throughout the Union generally; strict prohibitory laws are in force in Iowa, Illinois, Wisconsin, and Michigan; complete prohibitory laws (collectively and popularly known as the “Maine Law”) are in operation in all the New England States. In various States, laws are in force making sales to drunkards and minors penal, and allowing widows, orphans, and other relatives, to claim damages from liquor-sellers who can be proved to have sold drink to men before they met with death in consequence of their intemperance. In no State is the liquor traffic free—*i.e.*, carried on without a licence; and in several States the Board of Commissioners who give or refuse licences are elected by the ratepayers of districts.

CHAPTER VII.

RAILWAYS—CANALS—TELEGRAPHS.

RAILWAYS.

THE rapid growth of the railway system of the United States is perhaps one of the most notable features of the material progress of the country. Railways in America may be said to be almost cotemporaneous with those of England. The opening of the Liverpool and Manchester Railway in the latter country proved, in an unexpected and triumphant manner, the adaptability of the powers of steam to rapid locomotion, and in a few years after its development in England the same system was in practical operation in the United States.

When the first sod of a portion of the Baltimore and Ohio Railway was cut, on the 4th of July, 1828, iron tracks on which vehicles were drawn by horse power had been in use some years at many of the coal mines and granite quarries of Pennsylvania and Massachusetts, and on its completion in 1829 it was also worked partly by horse power, the only locomotive being a small one built at Baltimore. This engine is still in existence, and may be seen in the company's workshops, where it is preserved as an interesting relic. In 1830, the Hudson and Mohawk Railway was commenced; the following year saw it in operation between Albany and Schenectady; and in

1832 a locomotive travelled over it at the rate of thirty miles an hour, with a load of eight tons. During the same year sixty-seven miles of railway were in operation in Pennsylvania, and important lines were begun in Massachusetts and New Jersey; and from this time considerable energy was manifested in railway enterprises. Their rapid progress is illustrated by the following table, which shows the number of miles in operation from 1840 to 1864:—

YEAR.	MILES.	YEAR.	MILES.
1838	1,843	1852	12,841
1840	2,167	1854	19,195
1842	3,863	1856	23,724
1844	4,285	1858	27,158
1846	4,828	1860	31,185
1848	6,491	1864	35,000
1850	8,827		

These 35,000 miles have been laid at an expenditure of \$1,264,336,000 (£252,867,200).

Up to the commencement of the last decade, the railways sustained only an unimportant relation to the internal commerce of the country. Nearly all the lines then in operation were local or isolated works, and neither in extent nor design had begun to be formed into that vast and connected system which now covers almost every portion of the Union, enabling each work to contribute to the traffic and value of all. Though the rapidity with which the railways have been constructed has been so great, and the mileage is so large, the requirements of the country are by no means met. In many parts the existing lines are quite insufficient to convey the traffic; and in the Western States the produce has increased faster than the means of transport.

The following table shows the lengths and cost of some of the principal lines in operation in 1866:—

	MILES.	COST.
Illinois Central.....	708	\$28,610,000
New York Central (Branches)	555	32,740,000
Chicago, N. W., Galena, and Elgin ...	535	28,000,000
Erie and Branches	528	39,328,000
Mobile and Ohio	482	14,484,000
Pittsburg, Fort W., and Chicago	467	18,891,000
Chicago, Peora, and Quincy	400	39,270,000
Baltimore and Ohio	386	24,919,000
Pennsylvania, Cent., Colum. Div.	359	26,058,000
Atlantic and Great W. (Branches) ...	507	47,000,000
Memphis and Charleston	290	67,450,000
Louisville and Chicago	288	7,000,000
Philadelphia and Erie	288	16,500,000
Michigan Central	284	13,805,000
Mobile and Ohio, from Alabama	282	8,475,000
Marietta and Cincinnati	272	10,722,000
Milwaukee, St. Paul, and Horicon.....	261	8,144,000
Louisville and Nashville	253	9,730,000
Philadelphia and Read (Branches) ...	154	24,735,000
Philadelphia, Wilm'n, and Baltimore	98	8,575,000
Philadelphia and Baltimore Central ...	365	930,000
Philadelphia and Trenton	282	608,000

Enumerating all the important roads and their branches, there were in the United States in September, 1865, 593 companies, owning one or more lines of railway, of which Pennsylvania possessed 85; Massachusetts, 46; New York, 44; Ohio, 29; Illinois, 28; New Jersey, 26; Indiana, 23; and the Southern States, 101. According to the return of 1865 Pennsylvania is foremost of all the States in the length of railways completed.

The following is a table of the number of miles of railways in each State in 1866, with the cost of construction:—

States.	Miles completed.	Completed and constructing.	Total Cost.
1. Maine.....	509	640	\$18,134,925
2. New Hampshire	659	659	22,342,947
3. Vermont	596	596	24,773,417
4. Massachusetts	1,309	1,353	59,956,462
5. Rhode Island	119	151	4,941,240
6. Connecticut	637	717	23,900,001
7. New York	2,928	3,278	145,240,291
8. New Jersey	868	887	49,483,532
9. Pennsylvania	3,797	4,364	195,982,888
10. Delaware	126	172	4,921,709
11. Maryland and Dis. of Col.	486	727	28,558,124
12. Virginia.....	1,378	2,054	45,146,843
13. West Virginia	361	361	24,370,667
14. North Carolina	977	1,352	19,308,018
15. South Carolina	988	1,072	22,423,690
16. Georgia	1,421	1,635	29,169,513
17. Florida	401	586	8,628,000
18. Alabama	891	1,434	21,351,102
19. Mississippi	867	1,072	24,112,507
20. Louisiana	335	838	13,627,664
21. Texas.....	451	2,787	16,509,772
22. Arkansas	38	701	3,800,500
23. Tennessee	1,317	1,392	33,977,478
24. Kentucky	613	940	21,639,876
25. Ohio	3,392	3,999	131,872,472
26. Michigan	949	1,734	39,648,812
27. Indiana	2,196	2,466	72,377,489
28. Illinois	3,171	3,759	127,798,081
29. Wisconsin	1,044	1,357	39,580,741
30. Minnesota	227	1,608	8,250,000
31. Iowa	946	2,023	36,142,928
32. Missouri.....	924	1,572	50,232,482
33. California	262	1,285	13,800,000
34. Oregon	19	19	500,000
35. Kansas	122	480	3,500,000
36. Nebraska Territory	53	1,200	3,000,000
Total United States	35,487	51,270	\$1,388,554,968

In comparing the length of the railway lines in the United

States with those of other countries, it must be borne in mind that they consist generally of only a single track, and that a greater portion of the English lines are laid with double tracks, though the estimate of mileage it takes the same as for a single line.

In the structure of the American lines principles have been adopted by which they are constructed with great economy. The difficult and expensive condition of excluding all curves but those of large radius, and all gradients exceeding a certain limit of steepness is not insisted on. Curves of 500 feet radius, and even less, are frequent, and acclivities rising at the rate of 1 foot in 100 are considered a moderate ascent; many lines are laid down with gradients varying from 1 in 100 to 1 in 75, and these are worked with facility by locomotives, without the expedient of assistant or stationary engines. The cost of earthwork, bridges, and viaducts, even in parts of the country where the character of the surface is least favourable, is consequently much reduced. The construction as well as the materials are also very economical. Instead of the stringers used on English lines, transverse wooden "cross-ties" or sleepers are laid about two feet apart, upon which the ordinary "T rails" are placed. The bridges are generally built of wood, and there is but little tunnelling. The lines are not always fenced, especially in the sparsely settled districts, and the cattle which in most parts roam at large, are scared off by the steam whistle, or where this fails to serve the purpose, the "cow-catcher," a wedge-shaped iron framework which is a universal appendage at the front of an American engine, usually serves to throw the animal from the track without damage to the train; the animals being usually killed by the collision where the speed cannot be slackened in time. Owing to the cheap scale on which American railways are constructed,

the inexpensive stations or depôts, the cheapness of lands through which they pass, and other circumstances, the average cost per mile is not half so much as in Europe, the average estimate being only \$34,307 (£7000). On the prairies the cost is only about \$20,000 (£4000) per mile. This difference being due to the fact that the cost of grading is very light, the track often stretching away for miles over a dead level. The appearance of a long train of "cars" at full speed on one of these level prairie lines, when viewed at a distance of several miles, is most impressive as it winds smoothly along between sky and earth. The trains are not remarkable for their high rate of speed; the mode of construction, as well as the general condition of the track, limits the average speed to about 18 to 20 miles an hour, and express trains do not usually exceed 30 miles per hour. Excursion trains, now so prominent and agreeable a feature of European railways, are unknown in the United States. When railways strike the course of rivers, such as the Hudson, Delaware, or Susquehannah—too wide to be crossed by bridges—the traffic is carried on by steam-ferries. It is often so arranged that the time of crossing corresponds with the hour for meals; while the boat is crossing the spacious river, the passengers are supplied with their breakfast, dinner, or supper, as the case may be. On arriving at the opposite bank they resume their places in the railway carriages, and the train proceeds.

Railway travelling in America has a peculiar charm in the variety of scenery traversed by some of the longer lines. Often a few hours suffice to transport one from the busy hum of a great metropolis into the deep solitude of the primeval forest or prairie. A peculiarity in the American trains is the construction of the passenger carriages, or cars, which are much longer than the English,

and are entered by a door at each end. There are two rows of seats, with a narrow passage between. The whole train may be traversed without descending to the ground, and the conductor passes from one end to the other collecting his tickets, while the train is in motion. The cars are capable of containing each about sixty passengers. With the exception of the emigrant trains, there are generally no distinctions of first, second, and third class, as in England. The fares on the American lines are on an average about equal to the second-class fares in England. There is attached to each train a smoking car, and often a sleeping car, in which passengers are for a small extra charge provided with a comfortable night's lodging. Most cars have a small apartment at one end for the accommodation of ladies and children. Stoves are also provided in winter. "An American conductor is half clerk, half guard, with a dash of the gentleman; and, when off duty, passes for a respectable personage at any of the hotels, and may be seen in the best company, with a fashionable wife. He must needs be a person of some integrity, for the check upon his transactions is infinitesimally small. The suddenness of his appearance, when the train gets under way, is very marvellous. Hardly have the wheels made a revolution when the door at one end of the car is opened, and the conductor, like a wandering spirit, begins his rounds. Just before coming to a station, he takes a deliberate survey of his customers, receiving checks from those who are about to depart." The conductor can always and instantly communicate with the engine-driver, by means of a cord which runs along the ceiling of the cars, and is arranged and connected before starting the train.

The arrangements connected with the baggage are excellent. Each train has a "baggage car" attached, superintended by a "baggage master." This official, on receiving

a trunk or portmanteau, attaches to it a brass plate upon which a number is stamped, and gives to the owner a duplicate plate which answers for a receipt; before arriving at any important point an omnibus agent passes through the train, and upon the delivery of the check he gives the passenger another, called an omnibus check, which—without further attention on the part of the passenger—secures the safe delivery of his baggage at any hotel or private house at which he signifies his intention of stopping. While the train is in motion boys with papers and books, and vendors of lemonade and fruit, perambulate the cars. The various railway lines have in most instances made mutual arrangements which enable the traveller to avoid all trouble concerning his baggage, and by procuring a “through check” he may travel from one end of the Union to the other without once seeing his baggage during the journey. In many of the principal American cities, the railways are continued to the centre of the town, following the windings of the streets. The locomotive station is, however, generally in the suburbs. Having arrived there, the engine is detached from the train, and horses draw the cars to the passenger depôt, usually established in some central situation. Four horses are attached to each of these long carriages. The sharp curves at the corners of the streets are turned by causing the outer wheels of the trucks to run upon their flanges, so that they become while passing round the curve virtually larger wheels than the inner ones.

Tramways or street railroads have been introduced in all the principal American cities, and in many of them have as effectually superseded the omnibus as railways have the old stage coach.

In New York 307 miles are in operation.

„ Brooklyn 101 „ „ „

In Boston	124 miles are in operation.		
„ Philadelphia	183	„	„
„ Baltimore	35	„	„
„ Chicago	40	„	„

THE PACIFIC RAILWAYS.

The demand for greater facility of communication with the Pacific region has led to a series of surveys for the purpose of demonstrating the most practicable route for a railway to the Pacific. The time is not far distant when much of the trade between Western Europe and Eastern Asia will be carried across the American continent, and the dream of the early explorers realized. "America," says Colonel Synge, R.E., "is geographically a connecting link between the continents of Europe and Asia, and not a monstrous barrier between them. It lies in the track of their nearest and best connection; and this fact needs only to be recognized to render it in practice what it unquestionably is in the essential points of distance and duration." Shanghai is becoming most rapidly the great commercial emporium of China. It is situated at the mouth of the Yang-tse-Kiang, the largest river of Asia, navigable for 1500 miles. Hong Kong, the centre of the English trade in China, is 960 miles farther south. With a railway across the American continent the distance from England to Hong Kong could be made in about thirty-three days.

Surveys were made for a line to the Pacific in 1850, but the country at that time was not prepared to engage in the undertaking. Several lines are now, however, in course of construction. Silas Seymour, Esq., Consulting

Engineer of the Union Pacific Railway, in a communication to the "American Railroad Journal," of Feb. 24th, 1866, thus fully describes and explains the various organizations and projects known as Pacific Railways, which are no less than seven in number.

First. The Pacific Railway of Missouri (a State enterprise), extending from the city of St. Louis to the east line of Kansas, at or near Kansas City, a distance of 283 miles. This road is now completed and in operation.

Second. The Union Pacific Railway, Eastern Division, extending from the western terminus of the Missouri Pacific Railway, at the eastern boundary of Kansas, to an intersection with the Union Pacific Railway, "at a point on the 100th meridian of longitude west from Greenwich, between the south margin of the Republican River and the north margin of the valley of the Platte River, in the Territory of Nebraska, at a point to be fixed by the President of the United States after actual surveys." The total distance is about 360 miles. This is also a State undertaking, and was formerly known as the "Leavenworth, Pawnee, and Western Railway Company of Kansas;" but the Company, in 1863, assumed the name of "Union Pacific Railway, Eastern Division," by which title it has since been recognized. This company receives the same amount and kind of aid from the general government as the Union Pacific Railway, which, to avoid repetition, will be described in connection with that road. The laying of track was commenced in 1863, since which 62 miles have been completed, and the road is now open for public use to Topeka, the capital of Kansas.

Third. The Union Pacific Railway, extending from the western boundary of the State of Iowa, at Omaha, "to the western boundary of the Territory of Nevada, there to connect with the line of the Central Pacific Railway Com-

pany of California," a distance of about 1600 miles. The capital stock is \$100,000,000. This organization is entirely the creation of Congress, and being located within the Territories, is not subject to any State or municipal regulations. To aid in its construction the Government grants every alternate section of public land, designated by odd numbers, to the amount of ten alternate sections per mile, on each side of said railway on the line thereof, and within the limits of twenty miles on each side of said road. To aid further in the construction of this road the law provides that as certain portions therein specified are fully completed and equipped, the Secretary of the Treasury shall issue to said Company bonds of the United States, as follows: "For 300 miles of said road, most mountainous and difficult of construction," \$48,000 per mile; "and for certain other sections amounting to 300 miles," \$32,000 per mile; and for the entire remainder of the road, \$16,000 per mile. The laying of track was commenced in July, 1865, and 40 miles were completed up to Feb. 1866. Since that time the track has been extended to Fremont, 50 miles from Omaha. The grading of the first 110 miles is now completed, and arrangements are perfected for opening 100 miles to the public before the 4th of July, 1866.

Fourth. The Central Pacific Railway of California, extending "from the Pacific coast, at or near San Francisco, or the navigable waters of the Sacramento River, to the eastern boundary of California." This is a State organization, but it receives from the general government the same aid as the Union Pacific Railway. This company has transferred to the Western Pacific Railway Company the right to construct the road to the Pacific coast, and is now engaged in the construction of the line easterly from Sacramento to the State line, a distance of 164 miles. The laying of track was commenced in June, 1864, and 56

miles of road have since been completed and accepted by the Government. Seventeen additional miles of grading are now completed, and the remainder of the grading is well under way. The line, as established by the Company, intersects the easterly boundary of California in the valley of the Truckee River.

Fifth. The Western Pacific Railway of California, extending from Sacramento to San Francisco, by way of San Jose, a distance of 170 miles. This is also a State organization, and receives through an assignment from the Central Pacific Railway Company (which has received the sanction of Congress) the same aid from the Government as the Union and Central Pacific Companies. The line from San Jose to San Francisco, a distance of 50 miles, is completed. From San Jose eastward, about 20 miles is completed, and the iron for the remainder of the distance to Sacramento is already purchased and going forward. The grading is entirely out of the way.

Sixth. The Southern Pacific Railway of California, extending from the bay of San Francisco to the port of San Diego, and thence to the east line of the State of California, a distance of about 420 miles. Capital, \$30,000,000. This is a State organization, and receives no aid from the general government.

Seventh. The Northern Pacific Railway Company, extending from the head of Lake Superior to Puget Sound, "with a branch *via* the valley of the Columbia River to a point at or near Portland, in the State of Oregon." Capital stock \$100,000,000. This company was chartered by Congress in 1864. The company receives from the Government "every alternate section of public land, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile on each side of said railway line, as said company may adopt, through the Territories of the

United States ; and ten alternate sections per mile on each side of said railway whenever it passes through any State."

In addition to the above may be mentioned the old organization known as the Southern Pacific Railway, which was intended to run from Memphis, Tennessee, to San Diego, California.

CANALS.

Soon after the acknowledgment of the independence of the American colonies by England in 1783, several companies were formed in New York and Pennsylvania, for the purpose of constructing a system of canals. These enterprises were accordingly commenced, but on a scale too limited for the attainment of the desired objects. As the United States advanced in commercial prosperity, more extensive plans were adopted. In 1807 the Senate ordered Mr. Galatin, the then Secretary of State, to prepare a project for a general system of intercommunication by canals, based upon the geographical character of the territory of the Union ; and a system of artificial water-communication was accordingly projected, which at a later period was adopted and carried into execution. Owing to the war of 1812, it was not until five years later that the vast works were commenced, the result of which has been the most extensive system of inland navigation in the world.

On the 4th of July, 1817, the great line of canal connecting the Hudson with Lake Erie was inaugurated. The Hudson presenting a navigable communication

for vessels of a large class from New York to Albany, the object of this line of canal was to open a water-communication between Albany and the Lakes, so as to connect continuously the north-western States with the Atlantic. This work was accomplished in less than eight years, and the State of New York, with its exclusive resources, executed and brought into operation the Erie Canal, the largest in the world, costing, with its branches, \$13,000,000 (£2,600,000). It was, however, still found inadequate to the exigencies of a continually increasing traffic, and its enlargement was decided upon in 1835, when it was finally completed, at a cost of upwards of \$25,000,000 (£5,000,000 sterling). Its cost of construction per mile was about \$68,500 (£13,700). The total length is 363 miles.

Pennsylvania soon rivalled New York in these enterprises, the discovery of the coal-fields in 1820 causing a rapid development of canals in that State. These works were undertaken to a greater or less extent in most of the Atlantic and some of the Western States; and the United States now possesses a system of artificial water-communication amounting to nearly 6000 miles.

The principal canals are the following :—

		Width Miles, in feet.	Number of Locks.
Erie Canal, from Hudson River to the Lakes	363	40	84
Pennsylvania Canal, Delaware and Ohio	395	40	200
Ohio Canal, Ohio River and Lake Erie.....	307	40	152
Miami „ „ „ „	178	40	102
Indiana „ „ „ „	379	60	102
Illinois Canal, Lake Michigan with Illinois River	102	60	2

The Illinois and Michigan Canal, forming the connecting link between Lake Michigan and the Mississippi River is to be made a ship canal. The water with which it is supplied is pumped up twelve feet from Lake Michigan.

In order to overcome the difference of level between Lakes Ontario and Erie, and to afford a navigable connection, the Welland Canal has been constructed on Canadian territory with a series of locks, through which vessels, principally American, pass in great numbers.

TELEGRAPHS.

The first line of electric telegraph in the United States was from Washington to Baltimore, a distance of forty miles. It was opened in May, 1844, was afterwards extended to New York, 250 miles, and in 1845 continued on to Boston. From this line branches were soon constructed—one of 1000 miles in length, from Philadelphia to St. Louis; another of 1300 miles, *viâ* Albany and the lake cities to Milwaukee, Wisconsin; and a third, of 1395 miles, from Buffalo, N.Y., to Halifax. A line of 1200 miles was constructed from Cleveland to New Orleans, also a long line from Washington to Charleston, South Carolina, and Savannah, Georgia. The rapidity with which their construction was carried on when once started may be gathered from the fact that, while in 1848 there were only 3000 miles in operation, in 1850 there were 22,000 miles, 19,000 having been constructed in two years. In 1853 the number of miles constructed amounted to 26,375, and in 1866 the number of miles in operation is estimated at 100,000.

The Western Union Telegraph Company completed in 1861 a telegraph line, connecting the more easterly network of the continent with the California wires at San Francisco; and a northward extension of the California line,

afterwards carried along the Pacific coast, had, in 1864, been constructed to Olympia, on the south of Puget's Sound, and thence to Victoria, on Vancouver's Island, thus putting the Atlantic and Pacific coasts in immediate communication. Another line is being constructed by the "United States Pacific Telegraph Company." Starting from San Francisco, it has a double wire upon a single set of poles to Fort Kearney, Nebraska, at which point the wires will diverge, one running to St. Louis and the other to Chicago. The total length of this line will be 3270 miles, including both branches, and 6040 miles of wire will be required in its construction.

The projected Russo-American telegraph, known as the Collins Overland Line, is designed to connect the entire North American system of lines—as well as eventually the South American also—by way of British Columbia and Behring Strait, with the great Russian line, at its termination at the mouth of the Amoor River in Eastern Asia. The length of the line is about 6040 miles. The length of cable required at Behring Strait would be about forty miles. The waters are about 180 feet deep, and are frozen through one-half the year; but it is believed that the safety of the cable would not be endangered by the ice. When this overland line is completed, it will, with the Atlantic cable, complete a telegraphic circuit around the earth between the parallels of 42° and 65° north latitude.

THE ATLANTIC TELEGRAPH.

The idea of establishing telegraphic communication between England and America was first discussed by a small party of gentlemen called together in New York, by Cyrus W. Field, Esq., in 1854. The final result of their discussions was a written agreement that the enterprise should be at once undertaken. In the same year an act of incorporation was obtained of the Legislature of Newfoundland, under the title of the "New York, Newfoundland, and London Telegraph Company," granting the exclusive right for fifty years to land cables on the shores of Newfoundland and any places adjacent thereto, under their jurisdiction.

Having in 1856 completed a cable across the Gulf of St. Lawrence, and established lines connecting Newfoundland with the United States, Mr. Field then procured from the United States Government an order for a steamer to sound the Atlantic from Newfoundland to Ireland, and a similar assistance was obtained by him the following year from the British Admiralty, under whose instructions careful soundings were made. A new company was soon afterwards formed in England, under the name of "The Atlantic Telegraph Company," the two companies agreeing to operate in connection.

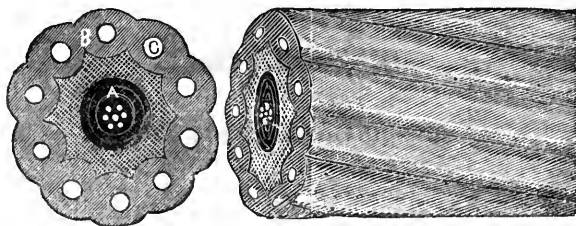
In August, 1857, the first attempt to lay the Atlantic cable between Newfoundland and Ireland—a distance of 1668 nautical miles—was made; but this, as well as a second attempt in the following year, failed to accomplish the object. In July, 1858, the fleet again sailed, to make the third effort to achieve the great enterprise. The splice was made in mid-ocean, the two steamers, "Niagara," and "Agamemnon," proceeding in opposite directions, and

each on August 5th landed their respective ends of the cable at Valentia and Trinity Bay. The submersion of the Atlantic cable was thus accomplished, and some four hundred messages were duly transmitted, among others the memorable communication between Her Majesty Queen Victoria and President Buchanan. From the first, however, there had been defects in the cable, which caused constantly increasing interruptions in the communications, until September 1st, when the cable entirely ceased to transmit messages.

The practicability of establishing telegraphic communication between Europe and America, however, had been proven by this successful submersion of the cable. Encouraged by accomplished facts, and the opinions of men of science and practical experience, the projectors of the enterprise determined to persevere. In 1864 the necessary capital was subscribed principally in England for a fresh attempt. The new cable, as well as the preceding ones, was manufactured in England. Various important improvements were made, the result of scientific research and the experience of the past, in addition to which every advantage was taken of the advancements made in telegraphic apparatus and appliances.

The steamship "Great Eastern" was selected, on account of her immense size, for the work of laying the cable, which was coiled on board the vessel in three immense tanks, of such size as to contain the cable and sufficient water to keep it submerged. In July, 1865, the giant ship steamed out to sea upon her grand mission. 1212 miles of the cable had been successfully payed out when a fault was discovered, and in attempting to haul the cable in it parted, and all attempts to recover it proving unsuccessful, the "Great Eastern" returned to England. Preparations were immediately made to renew the at-

tempt, the "Great Eastern" being retained for the purpose. The new cable is essentially the same as the former, the principal difference being that the protecting wires are galvanized.



ATLANTIC CABLE OF 1865-6. EXACT SIZE.

Conductor.—Copper strand consisting of seven wires, imbedded for solidity in Chatterton's Compound. *Insulation*.—Gutta Percha (A), four layers of which are laid on alternatively with four thin layers of Chatterton's Compound. The copper strand and this insulation form the "core." *External Protection*.—Ten solid wires (C), those in the cable of 1866 being galvanized, each surrounded separately with five strands of Manilla Yarn (B), saturated with a preservative compound, and the whole laid spirally round the core, which latter is padded with ordinary hemp, saturated with preservative mixture.

CHAPTER VIII.

THE RELIGION—EDUCATION.

RELIGION.

RELIGION in the United States presents itself under varied and peculiar aspects. From the first settlement of the New England States it has formed a prominent and important feature in the national institutions, and an open profession of attachment to some denomination is made in a much more zealous and decided manner than in any other country. The Christian religion is almost universal, the Protestant being the predominant though not the exclusive form of worship. The principle of religious toleration is deeply rooted in the minds of people, having grown out of the earnest religious movements which led to the first settlements.

The nation, as such, makes no profession, and provides no funds for the establishment of religion. There is no established church ; indeed the union of Church and State was so distasteful to the founders of the Republic, that a clause was inserted in the constitution providing that "Congress shall make no law respecting the establishment of religion." Every shade of religious opinion is thus left to exercise its natural and unbiassed influence, and though

sectarian jealousies exist to a considerable extent, there is nothing akin to persecution, or even of the nature of religious disabilities known in America. There are, of course, no "Dissenters," or, rather, all are "Dissenters." Though no particular denomination is fostered by the State, the Christian religion has been in most, if not all the States, recognized by statute or judicial decisions as part of the common law, and is enforced as such in regard to the observance of the Sabbath, the protection of the sanctity of Christian worship, and various other particulars. The absence of State interference in religious matters is by no means an indication of lukewarmness on the part of the people. In no part of the world is religion more universally embraced, or more liberally supported; and a survey of the religious statistics of the last census shows a large proportion of the population as church members; while the buildings consecrated to worship, although not so costly and magnificent as those of the Old World, are fully as numerous in proportion to population. Though unaided by forced taxation, churches have sprung up as if by magic, not only in the cities, towns, and villages, but in the very wilderness. Even in localities where a frame building would exceed the scanty means of the people, the primitive log "meeting-house" is frequently seen amid the lonely forest.

Favoured by the general freedom of conscience, the representatives of all the forms of Christianity in the Old World, with the exception of the Greek and Armenian churches, have planted themselves in the United States. The Methodists take the lead in point of numbers throughout the greater portion of the country, except in New England, where they rank second or third. The Baptists come next to the Methodists, and are subdivided into several sects; the regular or restricted communion Baptists being by far the most numerous.

The Baptist colleges, thirty-five in number, are largely endowed, Brown University being the oldest, and Rochester and Chicago the largest. This denomination predominates in Rhode Island, Virginia, Kentucky, and most of the Southern States. Presbyterians come next in point of numbers, the largest being the Old School Presbyterian Church, which has its largest membership in the Middle, Southern, and South-western States. The New School Presbyterians are found chiefly in the Middle and Western States, and the Cumberland Presbyterians in the South-western States. The Protestant Reformed Dutch Church flourishes principally in New York and New Jersey; the German Reformed Church in Pennsylvania, Maryland, North Carolina, and Ohio; and the Lutherans, consisting mostly of German, Swedish, and Danish emigrants, in Pennsylvania, Ohio, New York, North Carolina, South Carolina, Virginia, Maryland, Indiana, Illinois, Missouri, and Wisconsin.

The Protestant Episcopalian (Church of England), though having a smaller number of communicants than most of those previously named, is a prominent and influential body. In New York, Philadelphia, and perhaps some other large cities, the congregations are more wealthy than those of any other denomination. Before the revolution it was the established church of New York and Virginia, and is still one of the leading denominations in those States, as well as in Maryland, Connecticut, and Pennsylvania. The Congregationalists are divided into two classes, the Orthodox, or Trinitarian, and the Unitarian Congregationalists. The former are most numerous in the New England States, and have a considerable number of churches in New York and in the Western States. The Unitarian Congregationalists are more numerous in Massachusetts than elsewhere, but have some congregations in Maine, New Hampshire, Vermont,

Connecticut, New York, District of Columbia, Maryland, South Carolina, Alabama, Louisiana, Missouri, and California. The "Disciples of Christ," also called "Campbellites," from Alexander Campbell, the originator of the denomination, are found chiefly in Kentucky, Ohio, Virginia, Tennessee, Indiana, Illinois, Missouri, and Iowa. On the subject and action of Baptism they agree with the Baptists, but differ from them as to its design. They have a General Missionary Society, a Bible Society, several colleges, of which Bethany College, in West Virginia, is the oldest and best endowed. The denomination called the Christian Connection is found mostly in the New England States, New York, Pennsylvania, and Ohio.

The Universalists—who believe in universal salvation—are mostly in New England States, New York, Pennsylvania, Kentucky, Ohio, Michigan, Indiana, Illinois, and Wisconsin. The Friends, or Quakers, are divided into two classes—the Orthodox, or Trinitarian, and the Hicksite, or Unitarian Friends. The former is much the larger and more influential. The New Jerusalem Church, or Swedenborgians, are chiefly found in Massachusetts, and in several of the large cities. The Shakers have communities in five or six States. The Mormons form an isolated sect in Utah. Jewish churches exist in most of the larger towns of the Union, and are principally composed of Polish and German emigrants. The most important are those of New York, Philadelphia, Baltimore, Cincinnati, San Francisco, New Orleans, and Charleston. Sunday schools are very numerous, being supported by most of the religious denominations, and encouraged by grants of books and funds from the Treasury of the American Sunday School Union.

The Baptists and Disciples, with aid from other bodies, have formed in New York city the American Bible Union,

for the purpose of translating the Bible from the original Greek and Hebrew. The New Testament has been completed, and is now published.

The salaries of the ministers of all denominations are generally sufficient for their support, and even in the smallest villages equal those of a large proportion of the curates in England. The average salary of Congregational and Presbyterian ministers is said to be \$700 (£140), of the Reformed Dutch and Episcopal clergy, about \$600; of Baptist ministers, \$500; and of Methodist ministers, \$400.

RELIGIOUS DENOMINATIONS IN THE UNITED STATES IN 1862.

Denomination.	Churches.	Ministers.	Members.
African Methodist Episcopal Church .....	.....	.....	20,000
" " " Zion Church.....	.....	.....	6,200
Baptists :			
Regular	12,648	9,053	1,037,576
Anti-Mission	1,800	850	60,000
Seventh-Day	66	81	6,686
Six Principle	18	16	3,000
Free-Will.....	1,285	1,219	58,055
River Brethren	80	65	7,000
Winebrennarians.....	275	132	14,000
Dunkers	150	150	8,200
Mennonites	312	260	37,360
Disciples (Campbellites)	2,000	2,000	350,000
Christian Connection.....	2,200	1,500	180,000
Congregationalists :			
Orthodox	2,856	2,592	259,110
Unitarian	339	263	30,000
Episcopalians	2,045	2,045	150,593
Friends :			
Orthodox .....	.....	.....	54,000
Hicksite .....	.....	.....	40,000
German Evangelical Union of the West.....	.....	.....	3,000
German Reformed.....	1,122	421	100,691
Jews	170	.....	200,000

RELIGIOUS DENOMINATIONS—*Continued.*

Denomination.	Churches.	Ministers.	Members.
Lutherans	2,487	1,365	260,135
Methodists :			
Episcopal	9,922	6,934	988,523
Church South	1,122	2,591	499,694
Protestant .....	.....	.....	90,000
Evangelical Association .....	.....	.....	46,000
Wesleyan .....	.....	.....	21,000
Other small Methodist bodies .....	.....	.....	5,000
Mormons .....	.....	.....	61,000
Presbyterians :			
Old School	3,684	2,767	300,874
New School	1,466	1,706	135,454
Cumberland	1,270	1,150	123,000
Reformed Presbyterian Ch., General Synod	91	56	10,000
" " Synod	78	59	6,650
United Presbyterian Church	474	444	57,567
United Synod of Presbyterian Church	193	116	12,934
Associate Synod of North America	49	14	1,130
Associated Reformed Synod of New York	14	16	1,631
" " the South	13	4	1,000
Free Presbyterian Synod of the U. States... ..	40	41	4,000
Reformed Protestant Dutch Church	419	429	51,528
Roman Catholics	2,517	2,317	600,000
Second-Adventists .....	.....	.....	20,000
Shakers .....	.....	.....	4,700
Swedenborgians (New Jerusalem Church).....	57	49	5,000
United Brethren (Moravians)	32	46	8,275
United Brethren in Christ	1,118	1,477	102,583
Universalists	1,202	693	.....

EDUCATION.

No country in the world offers such educational facilities as the United States. From the earliest period education has been a subject of solicitude with both the people and Government, and in the words of Anthony Trollope, "unrivalled population, wealth, and intelligence, have been the results; with unrivalled comfort and happiness." That it is diffused very generally among all classes, is shown by the fact that the number of native inhabitants who cannot at least read and write, is very small. The enlightened men who led the early settlements of the New England States inculcated from the first, as a fundamental principle of public policy, that the education of the community should be carried on at the public expense, and the policy thus introduced has been successively adopted by the other States, until at last its soundness and importance is acknowledged by all. From this principle has grown up whatever is peculiar in the American system of education. It is essentially national in its characteristics, receiving State support and State supervision. Public schools are established by State authority; and in all the new States one or two sections of Government land in each township are reserved for school purposes, and the States have also grants of swamp and other lands for school funds, and for the establishment of State universities. Though the State Governments take the initiative, they only go so far as to ordain that schools of a certain character shall exist among the population; all other questions, as to buildings, method, etc., are determined by the people. The Government provides the funds, but makes the people its agent in their distribution. The object of the Legislature is well summed up in the following extract, taken from an

educational address delivered by Daniel Webster:—"We hope to excite a feeling of respectability and a sense of character by enlarging the capacities and increasing the sphere of intellectual enjoyment. We hope for a security beyond the law and above the law, in the prevalence of enlightened and well principled moral sentiment. We hope to continue and to prolong the time when in the villages and farmhouses there may be undisturbed sleep within unbarred doors. We do not indeed expect all men to be philosophers or statesmen; but we confidently trust, and our expectation of the duration of our system of government rests upon the trust, that by the diffusion of general knowledge, and good and virtuous sentiments, the political fabric may be secure, as well against open violence and overthrow, as against the slow but sure undermining of licentiousness. It is every poor man's undoubted birthright; it is the great blessing which this constitution has secured to him; it is his solace in life; and it may well be his consolation in death, that his country stands pledged by the faith which it has plighted to all its citizens, to protect his children from ignorance, barbarianism, and vice."

There is no university in the United States, in the European sense of an institution in advance of the college receiving only those who have completed their course in the latter; nor in the English sense, of a senate, elected, governed, and controlled by other corporations, with its fellowships, its sinecure professorships, and its ancient and peculiar traditions; nor yet after the model of the University of London, where any one may obtain the degrees it confers, without residence, by successfully passing its examinations. There are, however, a number of State universities which form, as it were, the apex to a system of which common schools form the base, and grammar

schools, high schools and colleges the successive stages. In New York is a special organization called the University of New York, consisting of a board of regents elected by the Legislature on the nomination of the governor. This board has the entire control of all the educational establishments in the State.

The number of colleges in the United States is 229, distributed as follows, and having in their libraries a total of nearly one million and a quarter of volumes :—

Maine	2	Mississippi	4
New Hampshire	1	Louisiana.....	7
Vermont	3	Texas.....	4
Massachusetts.....	6	Tennessee	7
Rhode Island	1	Kentucky.....	8
Connecticut	3	Ohio	24
New York	20	Indiana	13
New Jersey	3	Illinois.....	15
Pennsylvania.....	20	Missouri	11
Maryland.....	10	Michigan	4
District of Columbia..	3	Wisconsin.....	10
Virginia.....	11	Iowa.....	9
North Carolina.....	4	Minnesota	3
South Carolina.....	4	New Mexico	1
Georgia.....	7	California	4
Alabama.....	4	Oregon	3

These colleges differ greatly in the extent and completeness of their course of instruction, some being little more than academies giving an elementary course in mathematics and classics, while others equal the best classical schools of Europe in their requirements, and a few in the older States, such as Harvard and Yale, approach the dignity of first-class universities in the extent

and completeness of their curriculum, as well as the worth of the degrees they confer; some having connected with them departments for the scientific or professional study of law, medicine, theology, etc.

The following is a brief account of the principal universities :—

Harvard University, in Cambridge, Massachusetts, the oldest in the United States, was founded in 1638 by the Rev. John Harvard. It embraces, besides its collegiate department, schools for law, medicine, and theology. The buildings are fifteen in number, and are all located in Cambridge. The principal is the Rev. Thomas Hill. Its number of students averages about 800, and it has a splendid library of about 150,000 volumes. Yale College, the second oldest in America, is at New Haven, Connecticut, and was established in the year 1700. It is famous as having sent out more graduates than any other educational institution in America. The buildings of the college are among the chief attractions of the city, and the apartments devoted to the Fine Arts are especially worthy of notice, being occupied by the large collection of the works of the eminent painter Trumbull. The principal is the Rev. Theo. D. Woolsey, D.D., LL.D. The number of students is about 600. Number of volumes in library, 75,000. Brown University, at Providence, Rhode Island, is one of the best establishments in America. It was founded in 1764, and is remarkable for its large and valuable library, which is rich in rare and costly works. The total number of volumes is 37,000. Columbia College, New York, established in 1754, was chartered by George II., under the title of King's College. At the Revolution the title was changed. Charles King, LL.D., is the principal; the number of students is about 200; the library contains about 18,000 volumes. The University

of Virginia, near Charlottesville, was founded by Thomas Jefferson in 1819, who considered that it was the third best action he had performed during his whole life, honourable and useful as it was. It is distinguished for the high quality of its learning, and has about 400 students. The number of volumes in the library is about 30,000.

Most of the colleges in the United States were founded and are maintained by particular religious denominations. There are nearly sixty theological schools and seminaries, of which twenty are connected with colleges; fifty medical schools, of which about one-half are departments of universities; ten or twelve scientific schools, of which only three, as yet, are connected with universities:—the Lawrence Scientific School, at Cambridge, Massachusetts, with Harvard University; the Sheffield, at New Haven, Connecticut, with Yale College; and the Chandler School, at Hanover, New Hampshire, with Dartmouth College. One has also been projected in connection with Union College, Schenectady, New York. In several of the Northern States the tendency is to the organization of graded schools, the public schools of a town or village being arranged so as to have one or more high schools, three or four grammar schools, and a still larger number of intermediate and primary schools, all supported by taxes on property and the allowance from the school fund. The pupil, entering the primary school at five or six years of age, may pass by successive examinations to the highest department; and, there being no charge for tuition, the child of the poorest citizen can thus acquire an education hardly inferior in extent and thoroughness to that of the colleges. In some of the States this system is carried still further by the organization of free State universities. Massachusetts has reserved a considerable number of scholarships in the higher institutions, which are at the

disposal of the Board of Education; and if a pupil desires to become a teacher, the four Normal Schools of the State afford the opportunity of becoming qualified without charge for instruction. The New England States are in advance of the rest of the Union in facilities for the diffusion of knowledge. Everywhere, with the exception of Connecticut, the primary schools are supported by a property-tax, and some of the schools have other funds in addition. The common or public free schools are managed in each district by twelve directors chosen by the people; and the children are taught gratuitously, the only expense being for books. These schools are established in every rural district of five or six square miles. In Connecticut there is a school fund of which the annual revenue is about \$40,000. In the New England States, though the laws differ, yet the leading principles are the same in all. "Indeed," says Professor Ticknor, of Boston, "in almost every part of these States, whatever may be the injunctions of the law, the popular demand for education is so much greater, that the legal requisitions are generally exceeded. The mode in which the system is carried into effect is perfectly simple, and is one principal cause of its practical efficiency. The New England States are divided into townships, with corporate privileges and duties, the affairs of which are managed by a committee chosen annually, called selectmen. In all but the smallest towns one school at least is kept open through the whole year, in which Latin, Greek, the lower branches of mathematics, and whatever goes to constitute a common English education in reading, writing, geography, etc., are taught. Each district has its school-committee, who determine the place where it shall be kept, employ the teacher, and are responsible for the faithful fulfilment of the trust committed to them. There are not less than from

ten to twelve thousand free schools in New England alone."

The above outline of the New England system is the basis of that of the Union generally. The Western States will, if their lands are properly managed, be largely endowed, as the sixteenth section of every township is granted for school purposes. The Southern States have not made a very marked advance towards any well-organized school system; their population is a scattered one, and consequently there is a difficulty in the way of forming and maintaining common schools. A system of free public schools, similar to that established in New England, does however exist in several, and in facilities for education of a higher class, they will compare favourably with many of the Northern States. The late civil war greatly retarded the progress of education in the South, but there is little doubt that it will ere long recover its lost position. The amount annually expended in the United States for the support of common schools is over \$20,000,000 (£4,000,000), and the number of children attending in 1860 was nearly ten millions. In the State of New York, which stands at the head of the educational statistics, the number of school districts in 1861 was 11,683; and the entire expenditure of the year amounted to the large sum of \$3,842,250 (£768,450); and the tax on property (for the purpose of education), of three-fourths of a mill on each dollar of taxable property, yielded over \$1,085,000 (£217,000).

The importance of Normal Schools for the especial training of teachers is fully recognized in America. The first was established at Lexington, Massachusetts, in 1839, by the Hon. Horace Mann, whose name stands foremost among the promoters of education in America. There are now twenty State Normal Schools supported out of the

public funds, and free to those designing to become teachers within the State in which they receive instruction. They are located as follows:—In Massachusetts four, in Pennsylvania three, and one in each of the following States—viz., Maine, Rhode Island, Connecticut, New York, New Jersey, Maryland, Michigan, Illinois, Wisconsin, Iowa, Minnesota, Kansas, and California. The principal cities also provide, in connection with the public schools, for the professional training of those intending to devote themselves to education. During the past few years the school system has taken a forward step in the introduction of improved and more philosophical methods of teaching in all departments. At Oswego, in the State of New York, a school has been established for the introduction of the Pestalozzian system of “object teaching.” It has proved highly successful, and is visited by teachers from all parts of the Union. Besides the public and general means of instruction, the private schools are numerous, and infant and Sunday schools exist in great numbers. Among the largest of the public libraries are those belonging to the Harvard University, at Hartford, in the State of Connecticut, the Athenæum at Boston, the Franklin Library at Philadelphia, and the Astor Library of New York. Besides these, are the libraries attached to the various mechanics’ and other kindred institutions throughout the country. Among the public collections of objects of art and science, which may be regarded as important adjuncts of education, are the Botanical Gardens at Cambridge, New York, and Philadelphia; and the Mineral Collections of Cambridge, New Haven, and Brunswick. Museums, libraries, etc., are to be found in every city and important town throughout the country.

Owing to the general diffusion of education, a taste for reading is everywhere prevalent. This is strikingly shown

in the fondness for periodical literature. Newspapers are seen everywhere in the hands of the labouring as well as the wealthy classes, their moderate price placing them within the reach of all: and in no country has the influence of the press been more sensibly witnessed, and nowhere is so large a share of popular attention given to the discussion of questions of a social and political character. There is no paper which wields the influence possessed by the "Times," or other leading London papers in England. The New York papers, "Tribune," "Times," and "Herald," have a wide circulation outside of their district, but they are not to be considered as exponents of the feeling of all parts of the Union; and to learn the politics of the Eastern, Western, or Southern States, the last place to look for them would be in a New York paper. Mr. Dicey, in his valuable and impartial work entitled "Six Months in the Federal States," says: "As a man changes his district, so he changes his paper; and in every district there are one or more leading papers, which in their own district are what the 'Herald' is in New York." A remarkable characteristic of the American press is the quantity of matter crowded into the sheets. On the whole, it resembles the English newspapers in the unwieldy size of the sheets, in the immense quantity of news given, in the great space occupied by advertisements, and in the fact that the leading articles are practical comments, not abstract essays. Here, however, the resemblance between the American and the London press ceases. An American paper is a sort of cross between a county newspaper and a penny journal.

The returns of the last census show that the people are essentially a newspaper-reading people, and also that a large portion of their reading is of a political nature. Of 4051 papers and periodicals published in 1860, 3242 were

of a political character, 298 were devoted to literature, 277 to religion and theology, and 234 were classed as miscellaneous. During the ten years ending 1860, the political papers increased 100 per cent. The total circulation of all papers in 1850 was 426,409,978 copies; in 1860 this had increased to 927,951,548 copies, an increase of 117 per cent.

STATISTICS OF COMMON SCHOOL EDUCATION IN 1860, DERIVED CHIEFLY FROM STATE RETURNS.

States.	Population.	Whole number of children between 5 and 20 years of age.	Whole number attending public schools.	Amount of annual current expenses for public schools.	Average monthly wages of teachers, inclusive of board.		Amount of school fund.	Average number of school per annum.	Average cost of tuition to each pupil.	Amount raised by tax.
					Males.	Females.				
Maine	628,279	229,321	153,063	\$617,889 48	\$29 15	\$16 16	.....	5.00	\$1 97	\$406,063 54
New Hampshire	326,073	108,951	86,708	282,842 00	25 30	14 15	.....	5.20	3 26	215,405 00
Vermont	315,098	96,568	80,110	255,623 00	26 92	15 64	.....	5.50	2 95	.....
Massachusetts	1,231,066	283,000	211,338	1,519,171 00	48 90	19 02	\$1,523,319 33	7.60	6 56	1,390,382 00
Rhode Island	174,620	35,902	26,876	182,587 18	34 50	20 34	245,100 12	8.50	5 60	91,234 40
Connecticut	460,147	125,000	91,315	364,800 00	30 00	16 00	2,046,397 82	7.50	3 99	84,419 00
New York	3,880,735	1,158,224	851,533	3,684,617 57	33 17	19 50	5,752,917 83	7.60	4 32	1,921,464 05
New Jersey	672,035	196,944	131,748	539,532 45	33 17	19 50	460,804 80	9.25	5 04	353,275 12
Pennsylvania	2,906,115	960,731	647,114	2,619,377 28	24 36	17 79	.....	5.30	6 36	1,667,530 62
Delaware	112,216	31,544	11,468	78,253 14	...	...	440,505 83	7.60	4 17	53,057 02
Maryland	687,049	250,771	33,111	218,836 00	...	...	327,263 00	...	6 63	.....
Dist. Columbia	75,080	27,404	5,618	17,182 00	...	...	.....	...	...	.....
Virginia	1,596,318	582,656	54,232	160,430 42	...	...	1,833,420 17	3.00	2 96	.....
North Carolina	992,622	352,307	116,638	235,410 57	28 00	20 00	2,181,850 00	4.00	2 11	60,000 00
South Carolina	703,708	256,853	16,841	74,400 00	...	...	.....	...	4 40	.....
Georgia	1,057,286	117,670	79,922	179,090 00	...	...	552,500 00	...	15 50	150,000 00
Florida	140,425	22,512	6,218	24,798 00	...	...	460,000 00	6.00	...	.....
Alabama	964,201	178,095	69,127	271,580 72	...	...	1,425,000 00	...	1 30	.....
Mississippi	791,305	316,522	18,746	85,525 00	...	...	600,000 00	...	18 05	.....
Louisiana	283,200	36,000	36,000	650,000 00	...	...	999,113 00	...	1 06	.....
Texas	604,215	104,447	39,316	111,184 00	...	...	2,531,520 64	...	...	.....
Arkansas	435,450	174,180	10,369	54,425 13	...	...	1,500,000 00	...	1 83	.....
Tennessee	1,109,801	294,497	126,317	230,430 27	...	...	2,067,332 00	...	...	.....
Kentucky	1,155,684	462,273	97,001	304,933 20	...	...	3,000,000 00	6.20	4 30	2,461,325 92
Ohio	2,339,502	865,914	600,034	2,760,828 67	27 82	16 29	1,183,589 98	5.60	2 27	.....
Michigan	749,113	299,645	206,014	467,286 00	...	...	4,929,866 24	4.00	...	1,306,469 00
Indiana	1,350,428	495,019	383,619	821,713 80	28 25	18 06	1,952,090 00	6.83	5 91	723,130 00
Illinois	1,711,951	470,540	197,113	2,705,052 00	29 66	19 48	1,316,360 00	...	4 30	82,511 97
Wisconsin	775,881	299,133	198,443	854,766 00	23 00	14 62	500,000 00	...	4 23	85,000 00
Minnesota	173,855	42,258	20,808	88,911 23	...	...	2,303,676 00	...	...	.....
Iowa	674,948	233,927	81,672	198,103 00	...	...	678,967 96	...	3 89	.....
Missouri	1,182,012	341,121	157,526	608,908 00	...	...	803,320 00	...	10 90	205,212 00
California	379,994	76,976	39,736	427,004 00	...	...	41,607,212 22	...	...	.....
Total	31,065,414	9,722,105	5,154,895	21,185,627 04	...	...	...	...	...	...

CHAPTER IX.

DESCRIPTION OF THE PRINCIPAL CITIES.

A FEW of the leading characteristics of all the principal towns and cities have already been given under the head of the individual States. In this chapter is given a more detailed description of those which occupy positions of political or commercial importance.

NEW YORK.

New York, the commercial capital of the United States, the first city in population and wealth on the American continent, and the third in the world, was settled by the Dutch as early as 1612. It has, however, attained the greater part of its present size within the last fifty years. It now covers nearly the whole island of Manhattan. From its admirable position and magnificent harbour, it possesses unsurpassed facilities for trade and commerce. The harbour, twenty-five miles in circuit, is one of the safest and most spacious in the world, opening through the famous "narrows" into an outer harbour or bay, stretching to Sandy Hook, eighteen miles from the city. It

could accommodate all the navies in the world, and the shipping to be seen lying at its docks surpasses even that of London.

The streets, which were formerly very irregular, have been widened and improved, and no city can exhibit a more beautiful plan than the northern portion of New York. Broadway, running north and south, extends from the Battery to King's Bridge, fourteen miles. The first three miles of its course is perfectly straight, and offers a fine perspective. It is eighty feet wide, occupies the height between the two rivers, and with its magnificent stores, hotels, etc., with fronts principally of white marble, forms one of the most splendid promenades that any city can boast.

The Rev. J. P. Chown, of Bradford, thus vividly describes Broadway and the Fifth Avenue: "It may be the clear, transparent, smokeless atmosphere; it may be the architecture of the thoroughfares and the enormous size of the buildings; it may be the number of banners and bright colours that are always, more or less, waving in the breeze; it may be that the public vehicles are more brightly and variedly painted than ours; it may be the somewhat gaily-dressed pedestrians that throng the streets; but, be it what it may, the more I looked upon it the more I felt, calling to mind some of the noblest thoroughfares in the cities of Europe, that this Broadway was the most picturesque and striking public thoroughfare I had ever looked upon. The Fifth Avenue is equally wonderful, but entirely distinct and separate from it. Broadway is a business thoroughfare, while the Fifth Avenue is full of private residences, and you would find it difficult to conceive of any city in which you would see as great a length of elegant, beautiful, noble dwellings as there. Take one building of marble, as white as snow—the builder's estimates

for that are a million and a half of dollars, and the entire expenses will be two millions more, or £400,000. The thoroughfare stretches for two miles, making a beautiful line of gardens and groves."

Wall Street, occupied by banks, insurance offices, brokers' offices, the Custom House, United States Treasury building, and many fine granite buildings, is the centre of the monetary world of America.

One of the principal objects of curiosity in New York is the Croton aqueduct and waterworks, which are on the scale of the stupendous works of the ancient Romans. This aqueduct, which supplies the city with water, commences at the Croton River, 40 miles above the city, where the dam creates a pond of five miles long, covering a surface of 400 acres, and containing 500,000,000 gallons of water. From this point the aqueduct proceeds through tunnels in solid rocks, over valleys by embankments, to the Harlem River, which it crosses on a magnificent bridge of stone, 1450 feet long, with 15 piers, eight of them bearing arches of 80 feet span, and seven others of 50 feet span, 114 feet above tide-water at the top. The aqueduct is built principally of stone. It has a descent of $13\frac{1}{4}$ inches per mile, and will discharge 70,000,000 of gallons every 24 hours. The receiving reservoir at Eighty-sixth Street, 38 miles from the Croton dam, covers 35 acres, and holds 150,000,000 gallons. The distributing reservoir, on Murray's Hill, in Fortieth Street, covers four acres, and is constructed of stone and cement, 45 feet high above the street, and holds 20,000,000 gallons. Thence the water is distributed over the city in iron pipes, laid so deep under ground as to be secure from frost. The water is the purest of river water. The new reservoir in Central Park has an area of 106 acres, and contains 1,000,000,000 gallons. The total cost of this great work is about \$25,000,000 (£5,000,000).

The Battery is situated at the south-eastern end of the island, at the junction of the Hudson and East rivers. It is crescent-shaped, and contains about 11 acres of ground, tastefully laid out. From it is obtained a fine view of the bay, with its islands and the adjacent shores. The Bowling Green, at the southern termination of Broadway, is an elliptical area, 220 feet long, and 145 broad, containing a fountain supplied by the Croton waterworks, and inclosed by an iron railing. The Park, called in early times the Commons, is a triangular area of $10\frac{3}{4}$ acres, and contains the City Hall, the city buildings, the Hall of Records, and Rotunda. It has also a public fountain, with a basin 100 feet in diameter. St. John's Park, in Hudson Street, containing about four acres of ground, is beautifully laid out with walks, shaded with trees, and embellished with a fountain. Washington Square, a mile and a half north of the City Hall, contains about 10 acres tastefully laid out with shrubs and flowers. The Central Park was commenced in 1857, and contains 843 acres. It is about $2\frac{1}{2}$ miles long, and about half a mile wide; within its area are 9 miles of well made carriage drives, $5\frac{1}{2}$ miles of bridle road, and $22\frac{1}{2}$ miles of walk. More than 56 miles of pipe and tile drainage have been laid, and a system of waterworks designed to supply water for drinking and irrigation has been completed, the pipes of which are more than 15 miles in extent. The central architectural structure of the Park is the terrace, towards which all the walks of the southerly part of the Park converge. The Mall is a broad walk of about a quarter of a mile in length, planted with rows of majestic elms. There are four transverse roads crossing the Park at about half a mile apart, so constructed below the surface of the Park as to facilitate the passage of business traffic from one side of the city to the other without interrupting the pleasure travel. The archways

are among the novel and useful features of the Park. By means of these the intersecting lines of travel are carried on different levels, thus avoiding danger to foot passengers. It is the intention of the Commissioners of the Park to establish an arboretum, within which may be found every species of tree and shrub adapted to the soil and climate. The planting of the Park has been very extensive, consisting of over 260,000 trees and shrubs. A zoological garden is also to be established, and a floral conservatory. There are several beautiful artificial lakes frequented by pleasure-boats. When frozen in the winter, these lakes afford amusement to thousands of skaters.

Among the principal and most notable of the public buildings are the City Hall, which contains the chair used by Washington as President of the first American Congress; the Custom House, built of granite, at a cost of \$1,800,000; and the United States Treasury, built of white marble, 200 feet long, 90 feet wide, and 80 feet high. Among the literary institutions are Columbia College, New York University, the Free Academy, and the Cooper Institute. The Free Academy is a public collegiate institute, the pupils of which are selected from those who have shown unusual talent and industry in the public schools. The Cooper Institute was founded by the munificent public spirit of Peter Cooper, Esq., an eminent merchant, and is designed for the free education of the people. It gives instruction to 2000 students. Among the libraries are the Mercantile, the Mechanics' Institute, and the Astor Library, founded by John Jacob Astor, for the free use of the public. It is one of the most elegant, conveniently arranged, and efficiently conducted public libraries in the world. It contains at present about 130,000 volumes—the largest collection in America.

Staten Island, six miles below the city, is a favourite

suburban home of New York; it is 14 miles long, and from 4 to 8 wide. Elegant residences cluster on the heights of Richmond Hill, which commands grand and delightful views of the vicinity.

A great characteristic of New York is din and excitement; everything is done in a hurry, all is anxiety and bustle. This is especially noticeable in the principal thoroughfares, caused by the incessant passing and re-passing of thousands of vehicles, and multitudes of people.

BROOKLYN.

Brooklyn, separated from New York by East River, is in point of population the third city of the Union. It is laid out with great order and regularity, the streets crossing each other at right angles; some of them are of great width, and adorned with trees, which in summer afford a most agreeable shade, and give to the city all the freshness of a country town. "Brooklyn Heights" afford a beautiful view of the surrounding scenery, and of the shipping in New York harbour. The houses are remarkably well built, are generally of elegant design, and in the south-western part they are surrounded by gardens and shrubbery. The public buildings are generally elegant and substantial structures. The City Hall is a fine building built of white marble, 162 feet long, by 102 feet wide, and 75 feet high, and surmounted by a dome 153 feet from the ground. The Athenæum, Lyceum, Academy of Music, Orphan Asylum, Church of the Trinity, Church of the Pilgrims—all are handsome buildings. Brooklyn being so near New York, and the facilities of communica-

tion between the two cities being so great, it has become a favourite place of residence for persons doing business in New York. The harbour is spacious; the Atlantic Dock is one of the most extensive works of its kind in the United States, embracing over 40 acres, and costing about \$1,000,000 (£200,000). The United States Navy Yard occupies about 40 acres of ground, and has extensive workshops and ship-houses. The Naval Lyceum, formed in 1833, by officers connected with the port, has a fine collection of mineral and geological specimens, with other curiosities.

Greenwood Cemetery is a beautiful tract of ground, 330 acres in extent, containing every variety of landscape—

“Forest deep and gloomy,
Woodland, vale, and hill.”

It is laid out with great taste; winding avenues and paths, 15 miles in extent, lead the visitor amid thick foliage, by the side of secluded lakes, or to the top of some eminence from whence views are obtained of the Atlantic, and the adjacent cities. There are many costly and elegant monuments. One of them, a most beautiful marble structure, is to the memory of Miss Charlotte Canda, who was accidentally killed while returning from an evening party. Her father erected this monument at a cost of \$30,000 (£6000). The Fireman's monument, erected to the memory of firemen who fall while in the execution of their duty, is one of the finest in the ground. The Pilot's monument stands on an elevation overlooking the bay and harbour, from whence it can be seen.

BOSTON.

From its historical associations and commercial importance, Boston is one of the most interesting cities in the Union. Its foundation dates from the earliest days of the discovery and colonization of the Western continent. It is celebrated for the high social culture, morality, and enterprise of its inhabitants, as well as for the great educational facilities it offers. It is called the Athens of America. The city is situated amidst beautiful natural scenery, and possesses many handsome buildings. It is divided into three sections: Boston proper, East, and South Boston. The Puritans gave it the name of Fremont, the name of Boston was afterwards bestowed by the Rev. John Cotton, who emigrated from Boston, England. The old city proper, which is thoroughly English in aspect, is situated on a peninsula of some 700 acres, and is connected by a narrow isthmus, with the main land on the south, where the suburb of Roxbury now stands. Many bridges of peculiar construction and unusual length connect Cambridge, Charleston, Chelsea, and South Boston with the peninsula. The longest is the old Cambridge bridge, 2758 feet, with a causeway of 3432 feet. Near the centre of South Boston are Dorchester Heights, a memorable battle ground of the Revolution. In East Boston is the wharf of the Cunard steamers, 1000 feet long.

The streets are quite European in their appearance, being almost as intricate and irregular as those of London. Boston Common is a spacious and delightful public park, overlooking the State Capitol. It embraces fifty acres, ornamented with trees and a fountain. Among the public edifices the famous Faneuil Hall is the most interesting from the historical associations clustering around it. It

was here that the "Sons of Liberty," the fathers of the Revolution, held their meetings, and addressed the people. It was presented to the city by a generous merchant whose name it bears. The Exchange is one of the finest and most substantial edifices in America, covering 13,000 feet of ground. The State House, on Beacon Hill fronting the Common, is a well-built edifice, and contains Chantrey's statue of Washington. The City Hall is chiefly interesting for its colossal bronze statue of Benjamin Franklin, by R. B. Greenough; the Boston Athenæum is a handsome edifice, and is possessed of a library of more than 50,000 volumes, and a fine gallery of paintings.

Among the other institutions may be named Harvard University at Cambridge; the Massachusetts Historical Society, possessing a library of 12,000 volumes; the Sewell Institute for the delivery of free lectures upon scientific and art topics; the Lyceum, and the Society of Natural History. Among the chief objects of curiosity is Bunker's Hill monument, an obelisk of whitish granite, 221 feet in height, with a square base of 30 feet, from which it tapers to a point. It was erected in commemoration of the battle of Bunker's Hill, fought on the spot, and was inaugurated in 1843. In the suburban city of Cambridge is the Cragie House, which became the headquarters and abode of General Washington when, on the 2nd of January, 1775, he took command of the American armies. It is now the residence of the poet Longfellow. Mount Auburn Cemetery, about four miles from the city is one of the most beautiful of burying-places, situated amid charming rural scenery, and adorned with all that taste and art can suggest.

PHILADELPHIA.

Philadelphia, founded and named by William Penn in 1682, is the second city in extent and population in the Union. There is an air of neatness and peculiar cleanliness about this city. It is laid out with great regularity, the streets, with but few exceptions, crossing each other at right angles. There are several public parks, planted with trees, embellished with fountains, and tastefully planned with gravelled walks. The city was laid out in 1682 by Thomas Holmes, the first surveyor-general of the province, and was the adopted city of Franklin.

The public buildings, which are generally constructed of white marble, are among the most elegant in the United States. The Custom House, of white marble, built on the model of the Parthenon, the Pennsylvania Bank, the Mint of the United States, the Exchange, with Corinthian columns, and comprising a spacious hall and news-room, the United States Custom House, the Girard Bank, Masonic Hall, and several new banking houses, are the public buildings most remarkable for beauty; but the most interesting, from its venerable appearance and historical associations, is Independence Hall, in which the Declaration of Independence was signed in July, 1776. The panoramic view of the city from the steeple is strikingly beautiful.

One of the most stately and magnificent buildings in the United States is the Girard College, founded in pursuance of the will of Stephen Girard, a merchant of the city, who amassed a large fortune and bequeathed it to the city for the establishment and support of an institution for orphans. The edifice, purely Grecian in style, and

built of white marble, is exceedingly elegant in its appearance. It is in the form of a parallelogram, with a basement of steps all round. At each end are eight Corinthian columns, which with eleven on each side support a pediment and roof. The latter is composed of slabs of marble, resembling tiles, and the weight of these alone is about one thousand tons. The American Philosophical Society, the oldest and most celebrated scientific institution in America, was founded in 1743, chiefly through the exertions of Benjamin Franklin. It possesses a library of 15,000 volumes, and a fine collection of minerals, fossils, American antiquities, etc. The Philadelphia Library, also founded by the influence of Franklin, contains a library of 65,000 volumes. The Franklin Institute, the Academy of Natural Sciences, and the Historical Society are the most prominent among the numerous other literary and scientific institutions. Philadelphia has several medical colleges of high repute, among which are the University of Pennsylvania, the Jefferson Medical College, and the College of Physicians.

The celebrated Fair Mount Waterworks are situated on the east bank of the Schuylkill. The water is pumped into the reservoirs, which are elevated 100 feet above the river, by water power furnished by the same river which supplies the water. The reservoirs are capable of containing 22,000,000 gallons. The mill-race is 90 feet wide and 400 feet long, and furnishes sufficient power to pump 1,250,000 gallons in 24 hours. The whole is surrounded by charming grounds tastefully laid out.

BALTIMORE.

Baltimore, Maryland, founded in 1729, and named in honour of the founder, Lord Baltimore, is one of the four great commercial cities of the East. It is beautifully situated on a succession of hill slopes and terraces, which rise like an amphitheatre from the shores of the Patapsco River, about twelve miles from its entrance into Chesapeake Bay. From the great number of fine monuments for which this city is celebrated, it is called the "Monumental City." The foremost of these is the Washington monument, a chaste structure of brick cased with white marble. Its total height is $212\frac{1}{2}$ feet, inclusive of the colossal statue of Washington, sixteen feet high, which surmounts it. There are several public fountains, tastefully ornamented, furnishing, in connection with the city waterworks, a copious supply of pure water. There are upwards of 140 churches, many of which are elegant and costly structures. The Catholic cathedral is 190 feet long, 177 broad, and 127 feet high, and is said to have the largest organ in the United States, with 6000 pipes and 36 stops.

WASHINGTON.

Washington City, in the district of Columbia, is the political capital of the United States. Its situation on the banks of the Potomac River was chosen by Washington, and the city was also planned by and named in honour of him. Possessing no great commercial or manufacturing establishments, it affords a striking contrast to the other large and bustling cities of America; but it is perhaps all the better suited to its design—a place for quiet delibera-

tion. Pennsylvania Avenue, the principal street, is said to be the widest in the world. It measures 160 feet in width, and along the sides of the footpaths are rows of trees, which afford an agreeable shade in the heats of summer.

In 1793, Washington laid the corner-stone of the old Capitol, which, with the President's house and Library of Congress, was burned in 1814 by the British. In 1818 it was rebuilt, and in 1851 the corner-stone of the new building was laid by President Fillimore. The edifice is now almost twice the size originally intended. It has a length of 751 feet, and covers an area of three and a-half acres. The whole pile, built of marble in the Corinthian style, with its imposing front, handsome portico, and lofty dome, is an edifice which would do credit to any city in Europe. The rotunda is ninety-five feet in diameter, and is lighted from the cupola above, from whence a splendid view of the city and country around is obtained. On the walls are a series of large pictures, representing scenes in American history, painted by native artists. The Senate Chamber and the Hall of Representatives are in the wings on either side of the central building. The grounds in which the Capitol stands are about thirty acres in extent, and are embellished by fountains and statuary; amongst the latter is a colossal statue of Washington, in Parian marble, by Greenough, which stands on the broad lawn before the President's house.

The President's mansion, or the White House, an elegant but not imposing edifice of freestone, is a mile and a half west of the Capitol. It is 170 feet long and 86 feet deep, and only two stories high. The lawns around it contain about twenty acres. The Treasury Department is a stone structure 340 feet long and 170 feet wide, its east front has forty-two Ionic columns. The Patent

Office is one of the largest of all the Government edifices. It is built of stone, and when completed will cover an entire square. Here is a collection embracing models of every machine patented in the United States, to which nothing similar is found in any other patent office in the world. Also interesting relics of Washington and Franklin, as well as an immense and most valuable variety of objects of natural history.

The Smithsonian Institute is a noble endowment of a large-minded Englishman, James Smithson, who bequeathed the whole of a large estate inherited from his father, the first Duke of Northumberland, "to the United States of America, to found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men." His mother was the heiress of the Hungerfords of Audley, so that some of the best blood of England flowed in his veins, but he said of himself, "This avails me nothing; the name of Smithson shall survive the memory of man when the titles of the Northumberlands and Percys are extinct. The man of science is of no country; the world is his country, and all men his countrymen." The edifice is built of red sandstone in the Roman style, is 250 feet long, 140 wide, and has nine towers, from 70 to 150 feet high. It contains a lecture-room large enough to accommodate 2000 persons, a fine laboratory, a museum full of interesting objects, and library of rare and valuable scientific books. One of its most interesting features is a gallery 120 feet in length, containing a large collection of paintings, consisting of illustrations of Indian life, and portraits of celebrated Indian chiefs.

The Washington monument stands in New Park, and will have, when completed, a circular base 250 feet in diameter and 100 feet high, surmounted by a shaft 70 feet

in diameter and 500 feet high, making a total elevation of 600 feet; 100 feet greater than that of St. Peter's in Rome. Other notable objects are the Navy Yard, City Hall, and Columbia College. The Congressional Cemetery, in which every member of Congress who dies while a member has a monument erected to his memory, is ten acres in extent, and is tastefully laid out with trees and shrubbery.

CINCINNATI.

Cincinnati, Ohio, is the largest city of the Mississippi Valley. It is situated on the lower slope of an eminence 400 feet high on the Ohio River, about 150 miles from its mouth, and occupies the shore for more than three miles. It is a striking instance of the extraordinary and rapid development of American cities. In 1800 it was a village of about 700 inhabitants, now it is the fifth city of the Union. The streets are mostly well lighted and well paved, and are of good width. Main Street, the principal thoroughfare, is five and a-half miles long. Fifth Street is about four miles long, and with its markets presents a scene of great bustling and activity. The city, with its lines of well-built streets thronging with life, appears to great advantage from the summit of the amphitheatre of hills which encircle it.

Cincinnati is famous for its gigantic furniture-manufactories. "One of these," says Mr. William Chambers, "employs 250 hands, and turns out, among other articles, 124,800 chairs per annum; and another manufactory turns out 1000 bedsteads per week, almost every part of the work being done by machinery. The manufactories of boots and shoes are conducted on a scale scarcely less wonderful, one establishment alone consuming annually

10,000 sides of sole leather, 40,000 sides of upper leather, 20,000 sheepskins, 2500 calfskins, 500 lbs. of boot-nails, and 600 bushels of shoe-pegs." A peculiar characteristic of Cincinnati is its extensive business connected with the slaughter of swine and pork-packing. It is the principal hog-market in the United States. 500,000 hogs and 7000 oxen are said to be killed and salted per annum.

Among the public buildings, the most noted is the Cincinnati Observatory—a creditable building, erected through the voluntary contributions of the citizens. It is furnished with a telescope of great power, which cost \$10,000. St. Peter's, a Catholic church, is the finest building of the kind in the west. The Merchants' Exchange and Mercantile Library Association jointly occupy a beautiful and spacious building between Fourth and Fifth Streets. The Masonic Temple is an elegant building of freestone. The Court House is the largest building in the city. There are 110 churches, many of which are handsome structures. The Suspension Bridge across the Ohio River is the largest structure of the kind in the world, being more than 2000 feet longer than that over the Niagara, and 540 feet longer than the Menai Bridge, in Wales.

CHICAGO.

In the wonderful rapidity of its growth, Chicago, Illinois, surpasses every city of the Union. From a mere trading port in 1831, and a village of 5000 inhabitants in 1840, it has risen to a position of great wealth, population, and commercial importance. Its grain trade is greater than that of any other city in the world. It is situated on the shore of Lake Michigan, is well laid out

with wide streets crossing each other at right angles, and contains many magnificent buildings of brick and stone. Among the most remarkable public edifices are, the Court House, the Merchants' Exchange, the Marine Hospital, and the Medical College. The city is built upon a plain, and, until 1856, most of the streets were planked; and the buildings then erected were, owing to the soft and watery nature of the soil, generally without cellars. In that year was commenced a system of raising the business portion of the city four feet above its former level, and all new buildings are erected to correspond. Many of the buildings, however, still remain on the old level, though the streets have been raised. The process of raising the houses to the new level is one of great ingenuity and interest. Buildings of brick are raised several feet by the aid of screws, not only without injury, but without the interruption of business. When a hotel, or a block of buildings, is to be lifted up, a thousand or two thousand screws are placed beneath it, and little by little the house rises. Nothing is changed within, business being transacted as usual. One building, the estimated weight of which was 35,000 tons, was raised four feet five inches so carefully that not a crack in the masonry appeared.

The river, which is but a few feet below the level of the streets, requires numerous drawbridges, which are among the curiosities of the place, being constructed to turn on a pivot in the centre. The immense grain-houses are situated on the banks of the river. Those of the Illinois Central Railway can receive and load grain at the rate of 24,000 bushels per hour. Chicago has an immense cattle-trade. Its magnitude may be inferred from the dimensions of a cattle-market opened in the autumn of 1865. This market, fitted up with pens, substantially floored with wood, and lighted with gas, covers an extent

of forty-seven acres. The whole space devoted to its uses, including a large hotel, offices, etc., is 500 acres, making it perhaps the largest and most complete market in the world. Every railway that enters the city has a separate cattle-station in the market, so that the animals are brought or taken away without passing through the streets. Chicago owes much of its prosperity to its advantageous position at the head of the navigation on the great chain of lakes. The commerce carried on with Buffalo by means of thousands of vessels is very extensive.

ST. LOUIS.

St. Louis, Missouri, is situated on the Mississippi River, stretching for about five miles along its banks. The city is well laid out, many of the streets being from 60 to 100 feet wide. The principal public buildings are the Court House, a large and magnificent structure of limestone, with four fronts and handsome cupola; the Custom House, constructed of Missouri marble; the Mercantile Library, containing over 14,000 volumes; the St. Louis University; and the United States Arsenal. St. Louis is literally the centre of steamboat navigation on the Mississippi. The river, from St. Louis to its mouth, is termed the "Lower Mississippi," and is navigated by a class of large and magnificent steamers, making St. Louis their upper terminus. The river above the city is termed the "Upper Mississippi;" this, with the Missouri, the Illinois, and other numerous branches, are navigated by a smaller class of boats, all of which make St. Louis their lower terminus. There are also other lines running to the Ohio River; St. Louis is, therefore, the centre of a

vast trade; and the river traffic centring at this point is immense. The "levee," for miles, is usually crowded with hundreds of steamers receiving or discharging their cargoes; which, with the thousands of busy draymen, presents a scene of activity not to be witnessed elsewhere.

NEW ORLEANS.

New Orleans, the commercial emporium of the Southern States, is built upon a bend or crescent of the Mississippi, ninety-four miles from its mouth. The city is two to four feet below the level of high water, and protected from overflow by an embankment or levee. New Orleans has commercial advantages equal to those of any city in the Union. Into its marts are poured, on the bosom of rivers, whose united navigation is estimated to be 33,000 miles, the products of fifteen fertile States. It is the chief cotton mart of America, and the wharves are crowded with hundreds of ships from every part of the world, laden with every variety of foreign and domestic products. Steamboats of the largest class arrive and depart hourly, while a thousand to fifteen hundred "flatboats" may be frequently seen lying at the levee, presenting a most extraordinary scene of bustling activity.

The Custom House is the largest structure in the United States. It is built of granite, and has four fronts of 334, 310, 297, and 252 feet each. The chief business apartment is 116 feet long by 90 broad, and has 50 windows. The United States Branch Mint is also an imposing structure, with a front of 282 feet. The St. Charles is one of the finest hotels in the Union. The streets of New Orleans have the spaciousness and beauty so characteristic

of Southern cities, being wide, well paved, and regularly laid out, generally crossing each other at right angles. The broadest is Canal Street, which is $190\frac{1}{2}$ feet wide, having a grass plot 25 feet wide running its entire length, with shade trees on either side. The many elegant private dwellings are rendered pleasant by the grateful shade of tropical foliage, including the magnolia, orange, lemon, and myrtle. New Orleans is noted for its institutions of a literary and charitable character. The Opera House is a most superb structure. The Anatomical Museum contains a large and valuable collection, and the Medical College, to which it is attached, bears a high reputation. The markets, some of which are very extensive, are noted for their extreme neatness and cleanliness. The lower portion of the city, below Canal Street, is mostly French. In this part the French language and customs mostly prevail.

The arrangement of the cemeteries is unique. Each is enclosed within a brick wall, in which are arched cavities, or "ovens," as they are called, which are just large enough to admit a coffin, and are raised, tier upon tier, to a height of ten or twelve feet, with a thickness of ten feet. The whole enclosure is divided into plots covered with tombs.

MOBILE.

Mobile, the principal city and port of Alabama, is situated on the west bank of the Mobile River, just above its entrance into Mobile Bay, thirty miles from the Gulf of Mexico. The city is built on a plain fifteen feet above the river; it commands a beautiful prospect of the bay, the elevation being sufficient for convenient drainage. The

streets are wide, and shaded with rows of trees. The city is supplied with spring water brought from a distance of several miles. The principal buildings are the United States Marine Hospital and the City Hospital. It also contains an institution for the blind, two orphan asylums, a fine theatre, several academies, and Spring Hill College, with a library of 7000 volumes.

The city is noted for its magnificent and costly residences. Mobile ranks next to New Orleans as a cotton mart and place of export, and is the natural outlet of the best cotton region of the South. The adjacent villages, situated on a stretch of sand hills, afford a delightful and healthy retreat from the sickness which sometimes prevails during the summer months, and it is somewhat remarkable that, though the yellow fever may be raging with great virulence in the city, a few miles outside it never originates, and persons afflicted with it rapidly recover.

SAN FRANCISCO.

San Francisco, California, is situated on the shore of the magnificent bay from which it derives its name. It is not of recent origin, having been founded in 1776. Till the year 1847, when the discovery of gold in California was made, it was an unpretending little village; that event has been the means of transforming it into a great commercial metropolis. It is now the centre of an immense trade, and being the only water connection with the great interior valley, as well as of easy communication with Asia, its commercial advantages are very great. It is well laid out with regular streets, and till recently the houses were mostly built of framework; but the destructive conflagrations which have several times laid the city in ashes

have induced the use of brick and stone, and most of the larger buildings are well built and fireproof. It now covers an area of eight or nine square miles. Among the principal buildings are the City Hall, Custom House and Post Office, Marine Hospital, First Presbyterian Church and Baptist Church.

RICHMOND.

Richmond, the capital of Virginia, is situated on the line of the great railway route from the North-eastern to the Southern States. The city, imposingly elevated on an eminence, and overlooking the valley of James River, appears much larger than it really is. The State Capitol stands on Shockhoe Hill, commanding a magnificent view of the beautiful valley of the James. It contains a marble bust of La Fayette, and a fine marble statue of Washington, by the French sculptor, Houdon. The late civil war, however, has invested this building with its chief interest, for it was here that for four stormy years sat the grim legislators who composed the Confederate Congress, awaiting with stern patience the final success which so often, but so illusively dawned. Among the other prominent public buildings are the City Hall, Penitentiary, and Custom House. The rapids or falls of James River, extending six miles above Richmond, afford abundance of water power, which was rendered available during the war in the manufacture of arms and munitions.

CHARLESTON.

Charleston, South Carolina, is one of the most ancient of American cities. Its foundations were laid in 1672. At an early period it received large accessions of French

Huguenots, from which have sprung many of the families of Charleston. It is situated between the Ashley and Cooper rivers, which, uniting below the town, form a spacious harbour, with an average width of about two miles, and a length of seven miles. The ground on which the city is built is only eight or nine feet above the level of the harbour at high tide, which here rises about six feet, flowing by the city with a strong current, thus contributing to its salubrity. The city is regularly built, and extends about three miles in length, and one and a half in breadth.

The streets, many of which are sixty to seventy feet wide, are lined with trees. The buildings, mostly of brick, are some of them very elegant; and beautiful villas adorned with verandahs, reaching from the ground to the tops of the houses, buried in the rich foliage of orange trees, magnolias, and palmettoes, give an air of luxuriance and elegance to the city.

The bay is completely land-locked, and possesses a military strength of which ample proofs were given during the ever-memorable bombardment lasting through 1863 and 1864, which the city and forts underwent from the Federal monitors and ironsides. Fort Moultrie commands the entrance to the harbour, and is rendered famous by the naval action of 1776, when her guns beat off and almost destroyed the armament of Sir Peter Parker. Fort Sumter, whose fame now eclipses that of all the others, stands on an artificial island within the harbour, about three and a half miles from the city. The walls, which come close to the edge of the water, are built of concrete masonry. The fort cost about \$1,000,000.

SAVANNAH.

Savannah, Georgia, is situated on the Savannah River, eighteen miles from the Atlantic coast. The city was founded as early as 1732 by General Oglethorpe, but has, like most southern cities, been of comparatively slow growth. It is regularly built; the streets, which are mostly unpaved, are of great width, and lined with trees, Broad Street, Bay Street, and others, having four rows of trees, and a double carriage-way, with broad walks on the outside, and a promenade between. There are many public buildings of considerable size and elegance, among them the City Exchange, the State Arsenal, Oglethorpe Hall, and the Lyceum. There are also a number of literary and charitable institutions, and some handsome churches. In Monument Square is a fine Doric obelisk, 100 feet high; erected to the memories of Generals Greene and Pulaski; and a second monument has been erected in Chippewa Square to the latter General, who fell while gallantly attacking the city in the year 1779, when it was in the possession of the British.

Near the city is the beautiful cemetery of Bonaventure, originally a private estate, and laid out in broad avenues, which cross each other. These avenues are now grand forest aisles, lined with magnificent oak trees of full growth and great size; their dense leafage mingling overhead, and their huge lower branches trailing on the ground, bent down by the weight of the heavy festoons of Spanish moss which hang from them. A more beautiful resting-place for the dead can scarcely be conceived than amid this solemn forest. It has been charmingly described in the following lines:—

"Along a corridor I tread,
High over-arched by ancient trees,
Where, like a tapestry o'erhead,
The grey moss floats upon the breeze.
A wavy breeze which kissed to-day
Tallulah's falls of flashing foam,
And sported in Toccoa's spray,
Brings music from its mountain home.

"The clouds are floating o'er the sky,
And cast at times a fitful gloom,
As o'er our hearts dark memories fly,
Cast deeper shades on Tatnall's tomb;
While, glimmering onward to the sea,
With scarce a rippling wave at play,
A line of silver through the lea,
The river stretches far away."

COMPARATIVE POPULATION OF CITIES AND TOWNS HAVING OVER 14,000 INHABITANTS IN 1860.

Cities and Towns.	States.	1850.	1860.	Cities and Towns.	States.	1850.	1860.
New York	New York	515,517	814,287	Charlestown	Massachusetts	17,216	25,063
Philadelphia	Pennsylvania	408,762	608,034	Worcester	Massachusetts	17,019	21,960
Brooklyn	New York	130,757	266,664	Reading	Pennsylvania	15,743	23,165
Baltimore	Maryland	169,051	212,419	Memphis	Tennessee	8,851	22,625
Boston	Massachusetts	136,881	177,481	Utica	New York	17,565	22,528
New Orleans	Louisiana	119,461	168,823	New Bedford	Massachusetts	16,443	22,524
Cincinnati	Ohio	115,436	161,014	Savannah	Georgia	16,060	22,292
St. Louis	Missouri	77,860	151,780	Salisbury	Massachusetts	20,264	22,252
Chicago	Illinois	28,269	109,263	Wilmington	Delaware	13,979	21,258
Buffalo	New York	42,261	81,131	Dayton	Ohio	10,977	20,482
Newark	New Jersey	34,894	72,179	Manchester	New Hampshire	13,432	20,107
Louisville	Kentucky	43,194	69,740	Paterson	New Jersey	11,334	19,618
Albany	New York	50,763	62,368	Lynn	Massachusetts	14,257	19,083
Washington	District of Columbia	51,687	61,118	Indianapolis	Indiana	8,094	18,612
San Francisco	California	34,870	56,805	Columbus	Ohio	17,882	18,565
Charleston	South Carolina	42,985	51,210	Petersburg	Virginia	14,010	18,275
Providence	Rhode Island	41,513	50,666	Lawrence	Massachusetts	8,282	17,639
Pittsburg	Pennsylvania	46,601	49,220	Lancaster	Pennsylvania	12,369	17,603
Rochester	New York	36,403	48,096	Trenton	New Jersey	6,461	17,221
Detroit	Michigan	34,436	45,619	Nashville	Tennessee	10,165	16,987
Milwaukee	Wisconsin	20,061	45,254	Oswego	New York	12,205	16,817
New Haven	Connecticut	20,345	39,277	Kingston	New York	10,232	16,640
Troy	New York	28,785	39,235	Covington	Kentucky	9,408	16,471
Richmond	Virginia	27,670	37,910	Bangor	Maine	14,432	16,407
Lowell	Massachusetts	33,383	36,827	Taunton	Massachusetts	10,441	15,376
Cleveland	Ohio	17,034	36,054	Springfield	Massachusetts	11,766	15,199
Moble	Alabama	20,515	29,259	Newburg	New York	11,415	15,198
Jersey City	New Jersey	11,473	29,226	Norfolk	Virginia	14,306	14,619
Hartford	Connecticut	13,555	29,152	Ploughkeepsie	New York	13,944	14,726
Alleghany	Pennsylvania	21,262	28,703	Peoria	Illinois	6,095	14,425
Syracuse	New York	22,271	28,199	Camden	New Jersey	9,479	14,354
Portland	Maine	20,815	26,342	Wheeling	Virginia	11,391	14,168
Cambridge	Massachusetts	15,215	26,060	Norwich	Connecticut	10,765	14,047
Roxbury	Massachusetts	18,364	25,137	Fall River	Massachusetts	11,524	14,027

CHAPTER X.

NATURAL CURIOSITIES AND OBJECTS OF INTEREST TO TOURISTS.

WATERFALLS.

THE world-renowned Niagara Falls are situated on the Niagara River, 20 miles from its junction with Lake Erie, and about 14 miles above its junction with Lake Ontario. The river thus divides a portion of the State of New York from Canada; and the falls lie within the territory both of Great Britain and the United States. The two falls—the British or Horseshoe, and the American—are divided by Goat Island, a well-wooded piece of land terminating in a precipice. The total width from shore to shore, following the bend of the fall, is about three-quarters of a mile. The width of the Horseshoe Fall is about 1900 feet, and that of the American Fall about 950 feet. “The waters for which Niagara is the outlet, cover an area of 150,000 square miles—floods so grand and inexhaustible, as to be utterly unconscious of the loss of the *ninety millions of tons they pour every hour* through succeeding centuries, over these stupendous precipices.” Sixteen miles from Lake Erie the current narrows, and begins to descend with great velocity. This is the commencement of the rapids, which continue for about one mile, the waters rolling in swells as they

rush swiftly down over their rocky bed, accomplishing in this distance a fall of 52 feet. The rapids terminate below in two great cataracts, the precipitous descent of which is 164 feet on the American side, and 158 on the Canadian. The waters sweep down the rapids with such force that, on falling over the edge of the precipice into the deep boiling pool at the base, they form a grand curve, clear of the perpendicular wall. The space between this sheet of falling water and the wall widens near the bottom, the strata being hollowed out by the continual action of the spray. A cave is thus formed, into which persons can enter behind the fall. Among the great waterfalls of the globe that of Niagara stands pre-eminent for the enormous volume of water that is carried over so high a precipice. There are falls which descend from greater heights, but the sublimity of Niagara is in the vast power displayed by a mighty current descending impetuously first by rushing down the long inclined plane of the rapids, and finally plunging in one unbroken vertical sheet into the deep abyss below.

“ It comes like an eternity,
As if to sweep down all things in its track,
Charming the eye with dread—a matchless cataract.”

The dull, thundering, unceasing roar of the falling waters is sometimes heard as far as Toronto, 46 miles distant. It is supposed by Sir Charles Lyell that the fall is receding from the action of the water at the rate of one foot a year.

Below the falls, the river runs between perpendicular cliffs for three or four miles, in a channel from 300 to 800 feet wide, with great force and impetuosity, now ruffled by rapids, now eddying in whirlpools, till it finally flows into Lake Ontario. Between the falls and Queenstown occur two separate rapids; at the head of the first, the river is spanned by a magnificent wire suspension bridge, 800 feet

in length and 230 feet above the water. An angle in the river near the bridge causes a reflex in the current, which forms a number of eddies called the "Whirlpool," more remarkable for the heaping up of the waters in the centre of the river, through its impetus, than for any great violence of the whirlpools themselves.

The falls of the Connecticut are a series of rapids extending about a mile along the base of Tall Mountain, in New Hampshire. The river flows along so narrow a defile that it seems as if it was possible to leap across it, and the water, which is a dense mass of foam, rushes through the chasm with such velocity, that in striking the rocks below, it is forced back upon itself for a considerable distance. There is no perpendicular fall, but the river falls 50 feet in half a mile.

The Silver Cascade, in New Hampshire, is a most charming waterfall, seen at a distance of two miles babbling down the mountain side 800 feet above the valley.

Glen's Falls, in the Upper Hudson, nine miles from Lake George, New York, consist of the rapid descent of the river over a precipice of 75 feet. The scenery around is rugged and wild.

About 130 miles from New York City, among the Catskill Mountains, are some beautiful cascades, known as the Katterskill Falls. The first cascade has a fall of 175 feet, and the second descends 75 feet. For the distance of a mile the rivulet, which is a branch of the Katterskill Creek, tumbles over the rocks in a picturesque manner, till it reaches the main stream. Fennimore Cooper, in his "Pioneer," has thus charmingly described these falls:—"The water comes croaking and winding among the rocks, first so slow that a trout might swim in it, then starting and running like any creature that wanted to make a fair spring, till it gets to where the mountain divides like the

cleft foot of a deer, leaving a deep hollow for the brook to tumble into. The first pitch is nigh 200 feet, and the water looks like flakes of snow before it touches the bottom, and then gathers itself together again for a new start, and, may be, flutters over 50 feet of flat rock before it falls for another 100 feet, when it jumps from shelf to shelf, first running this way and that way, striving to get out of the hollow, till it finally gets to the plain." In the winter, the falling spray of the Katterskills is frozen into a thousand fantastic shapes, all glowing like the prism in the clear cold sunlight. The American poet, Bryant, has prettily set in verse the charms of the falls:—

"Midst greens and shades the Katterskill leaps,
From cliffs where the wood-flower clings;
All summer he moistens his verdant steeps
With the light spray of the mountain springs;
And he shakes the woods on the mountain side,
When they drip with the rains of the autumn tide.

"But when, in the forest bare and old,
The blast of December calls,
He builds in the starlight, clear and cold,
A palace of ice where his torrent falls,
With turret and arch, and fretwork fair,
And pillars clear as the summer air."

Fifteen miles north of Utica, in New York, there are a series of cascades and rapids on West Canada Creek, a tributary of the Mohawk, extending over two miles, and known as the Trenton Falls. The river has cut a narrow channel in the solid limestone rock to a depth varying from 100 to 150 feet deep, forming a clean limestone trough, through which runs in summer a narrow stream of water, almost as black as ink. Down this gorge, with its perpendicular sides of solid rock, the water takes a succession of

leaps of from 8 to 100 feet. The great charm in these falls is not in the body of water, but in the wildness of the scenery around. One of the falls—named Sherman's Fall, in memory of the Rev. James Sherman—has formed an immense excavation, and is every year forcing off large slabs of the rock, against which a portion of the water is incessantly rushing. The scene varies much according to the size of the stream, but it is difficult to say whether the glen is more beautiful when there is little or much water.

The Genesee Falls, at Rochester, New York, have three perpendicular pitches and two rapids, the entire descent being 268 feet. The first fall is one of 96 feet, and the ledge of the precipice breaks the water into three distinct sheets. Below this fall the river is broad and deep, with occasional rapids. The second fall is 20 feet, and the third has a descent of 105 feet. Below these are a number of rapids, which reach a considerable distance. Higher up the river, in Alleghany county, there are three falls of 60, 90, and 110 feet, within a distance of two miles. The water rushes through a rocky gorge, the walls of which are 400 feet high.

The Cohoes Falls, on the Mohawk River, New York, are noted for their picturesque beauty. The water has a perpendicular descent of nearly 90 feet, and in the autumn, when the river is full, forms a grand cascade.

“ At first an azure sheet, it rushes broad;
Then whitening by degrees, as prone it falls,
Dash'd in a cloud of foam, it sends aloft
A hoary mist, and forms a ceaseless shower.”

The Passaic Falls, near Patterson, New Jersey, form, when the river is full, an imposing scene. They are 70 feet in height, and the surrounding scenery is wild and romantic.

The picturesque Falls of St. Anthony are on the Mississippi, in the State of Minnesota. They were discovered in 1680 by Louis Hennepin, and named in honour of his patron saint, Anthony. The falls are less celebrated for their magnitude than for their accompaniments of wood and rock scenery. The Mississippi is more than 600 yards wide above the falls, and the entire descent is 58 feet, including the rapids. The water falls 20 feet in two perpendicular sheets on either sides of an island of white sandstone, which divides the stream as at Niagara. The greater portion of the water passes on the western side, which is 310 yards wide. The rapids below extend several hundred yards, are very broad, and are divided into numerous channels by sandstone islands, gigantic blocks of which are strewn in grotesque confusion at the base of lofty walls of dazzling whiteness. These rocks and islands assume numerous fantastic shapes, and are thickly wooded.

The Minnehaha, or the Falls of the Laughing Water,

"Flash and gleam among the oak trees,
Laugh and leap into the valley,"

near St. Anthony, in Minnesota. Half hidden in the forest, a small rivulet gently glides over the bluff into an amphitheatre, and forms the graceful waterfall. "It has but little of the 'cataract's thunder.' Niagara symbolizes the sublime, St. Anthony the picturesque, Minnehaha the beautiful. The fall is about 60 feet, presenting a parabolic curve, which drops without deviation to the lower level, when the stream goes on its way rejoicing, curling along in laughing, childish glee at the graceful feat it has performed in bounding over the precipice." Longfellow, in his sweet song of "Hiawatha," has immortalized these falls.

The great Falls of the Missouri, the largest after Niagara, are situated in the north-west part of the Terri-

tory of Dacotah. The river previously makes its way along the grand passage known as the Gates of the Rocky Mountains, and at the point of the falls makes a rapid descent of 357 feet in 16 miles. The first fall met with in



MINNEHAHA FALLS.

ascending the stream is 26 feet, the second is 27 feet, the third is 19 feet, and the fourth and highest fall is 87 feet. Between each of these cascades, as well as below them, are many rapids, and the surrounding scenery is sublime.

The White Water Cataracts, near Jocassee, in South Carolina, are chiefly remarkable for their picturesqueness, and in the variety and beauty of the surrounding scenery.

Toccoa Falls, near Clarksville, Georgia, is a narrow stream of water which, after babbling down the mountain's side, falls over a perpendicular rock a height of 186 feet, resembling a silver ribbon hung gracefully over the face of the rock, and waving to and fro with the breath of the wind.

Near the last-mentioned falls are the Cataracts of Tallulah. These, with the wild and romantic scenery amid which they are situated, are among the most imposing waterfall scenery in the United States. The Tallulah River is a stream which rushes through a chasm in the Blue Ridge Mountains, 1000 feet in depth. Along the rocky and uneven bed of this deep abyss the river frets and foams with ever-varying course. Now it flows in sullen majesty through a deep and romantic glen, embowered in the foliage of the trees which here and there spring from the rocky edges of the chasm walls; and then it rushes with accelerated motion, breaking fretfully over protruding rocks, and uttering harsh murmurs as it verges a precipice—

"Where, collected all

In one impetuous torrent, down the steep
It thundering shoots."

The larger of these cataracts are called the Lodore, the Tempesta, the Oceana, and the Serpentine. There are also many smaller ones.

Amicalolah Falls, or the Falls of the Tumbling Water, and the Falls of the Eastatoria, are also in Georgia. The former are a succession of cataracts and cascades, the greatest not exceeding 60 feet, though the total fall of the torrent in 400 yards is more than 6000 feet.

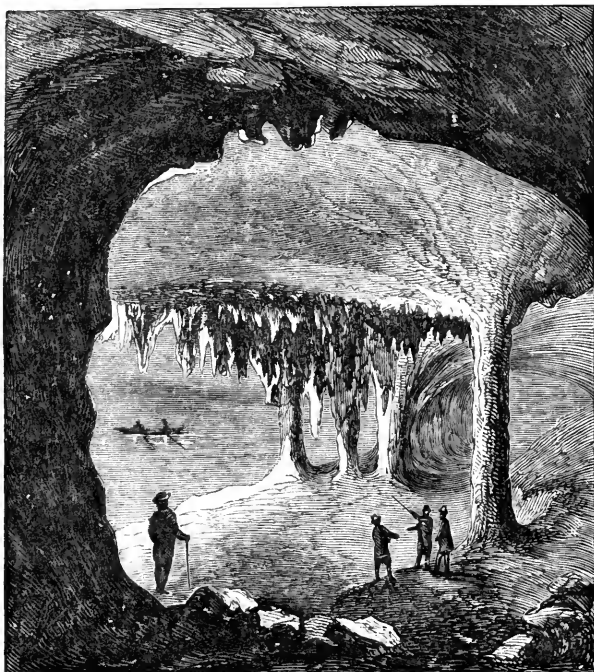
In the Yosemite Valley, in California—a dell of match-

less cliffs and cascades—are five waterfalls, one of which is 2000 feet high. The valley is a chasm in the Sierra Nevada, bounded on all sides by rocky walls, from 4000 to 4500 feet in height. The Cascade of the Rainbow, so called from the beautiful colours which, in the sunlight, adorn the mist floating round it, is 940 feet high, and though the water is 70 feet wide in the summer, yet, seen at a few miles' distance, it looks like a white streak in the rock. Four miles further up the valley, amid scenery of the most romantic beauty and grandeur, are the Great Falls of the Yosemite, called by the Indians "Cholook." This fall is believed to be the highest in the world. The stream, 80 feet wide, leaps down 2063 feet, in three falls, of which the first is 1300 feet high, the second 250 feet, and the third 450 feet. Though the body of falling water is so great, it is lost in spray before it reaches the bottom. Two other cascades, the Vernal and the Nevada, are in the same valley: the former, with a fall of 350 feet, is surmounted with large evergreen trees; the latter is 700 feet high, and strikes a projecting ledge of rock half-way, which causes it to dash into spray and mist.

CAVES, NATURAL BRIDGES, ETC.

The Mammoth Cave, in Kentucky, the largest known cave in the world, is an object of the greatest interest to travellers. It is said to have been penetrated by explorers to the distance of ten miles. The passages of this great cavern are in the aggregate 150 miles in length, and it has 256 known chambers. The thermometer stands constantly at 59° Fahr. Among the most noted chambers is the "Methodist Church," semicircular in form, with a natural pulpit. About fifty years ago the place was used for religious worship, and occasionally now services are

held within it. The Gothic Avenue, reached by a flight of stairs 40 feet wide, 15 feet high, and two miles long, leads to the Gothic Chapel, 80 feet long by 50 wide. Columns of immense size block up the two ends, and two rows of smaller pillars extend the entire length.



GOTHIC CHAPEL, MAMMOTH CAVE.

When lighted up, the scene is one of surprising grandeur. The Star Chamber, when seen without lights, reveals perfectly the meaning of visible darkness. "We seemed to feel the dense blackness against our eye-

balls," said a traveller describing the cave, "an object, however near, was not in the faintest degree visible. When the chamber was lighted up, we seemed to be in a deep rock-walled pit, gazing up at the starry firmament." The stalactites and stalagmites throughout the cave are of great beauty and of immense size. A river of fresh and pure water runs through it which is navigable by boats; and in it are found fish which are quite white and eyeless, and others which, though possessed of eyes, are yet blind.

The Wyandotte Cave, in Indiana, is almost as wonderful a place as the Mammoth Cave. It is several miles in length, and is divided into magnificent chambers and galleries, glittering with stalactites and other calcareous concretions. Epsom Salts Cave, in the same State, situated on the side of a hill, 400 feet from the base, is remarkable for a wonderful white column, 30 feet high and 15 in diameter, beautifully fluted. The figure of an Indian, rudely painted on the rock, is also to be seen. Epsom salts, nitre, and gypsum, are the principal components of the floor and walls of this cave.

Weir's Cave, in Virginia, 2500 feet in length, is celebrated for its rare beauty. The interior, with its brilliant stalactites, when lighted up, almost realizes the enchantments described by Eastern story-tellers. The Big Saltpetre Cave in Missouri has not been fully explored, but is thought to surpass all others in extent and beauty. It contains long galleries and chambers; rising to the height of 100 feet, and from 150 to 200 feet in width.

Fountain Cave, of Minnesota, near St. Paul, has a passage way 25 feet high and about the same width, leading into a vast hall of white sandstone more than 1000 feet in length, through which runs a rivulet of clear and cold water.

The Alabaster Cave, in California, was discovered in 1860 by some labourers while quarrying limestone. The cave has two chambers, one about 100 feet long by 25 feet wide, the other 200 feet long by 100 feet wide. Both these again have numerous recesses and galleries. A scene of great magnificence is presented on entering. Millions of precious stones seem to be sparkling on the walls, shining pendants reach from ceiling to floor, some tapering to a point, some tubular, some clear as crystal and of a bluish tinge. In the second chamber is the "chapel," with "belfry" and "pulpit," the latter formed by droppings from the rock above, catching on a ledge of rock and then rising, spreading, and folding over in a most graceful manner.

Nikojack Cave, in Georgia, extends into the Lookout mountain. It is entered by a portal 160 feet wide and 60 feet high; through this passes a stream, up which the visitor may be boated. The water of this stream is exceedingly cold, and is always flowing. The cave is sometimes so narrow that it will barely allow the boat or canoe to pass. It has been explored a distance of seven miles.

The remarkable channels cut by some of the rivers through ranges of hills are among the most picturesque features of the country.

The Hudson's passage through the highlands of New York, is a landscape of great magnificence and beauty. The different spurs of mountain ranges meet here, and about upon the river in precipices from 5 to 1500 feet in height. Foliage covers them from base to summit, and the river below flows on its way in abrupt curves, with a sombre dark-green shadow upon it. One of the grandest mountains of this highland group is Cronest, 1428 feet in height, which—

“Like a monarch stands,
Crown'd with a single star,
Where Hudson's waves o'er silvery sands
Wind through the hills afar.”

The Delaware Water Gap is a gorge among the Kittatinny Mountains, through which the Delaware makes its way in magnificent style. The cliffs rise perpendicularly from 1000 to 1200 feet.

Tuckerman's Ravine, in New Hampshire, is a long deep glen with frowning walls, often quite inaccessible. It is filled, hundreds of feet deep, with the snow which falls in winter, through which a brook silently makes its way in the summer, gradually widening its channel, till a grand snow cave is formed, which was found one year to be 40 feet high, 84 feet wide, and 180 feet long, the snow arch being 20 feet thick.

The Flume, also in New Hampshire, is a narrow gorge only a few feet in width, and from 70 to 100 feet in height, through which flows a narrow stream.

At the gates of the Rocky Mountains, in Dacotah Territory, the Missouri River passes through a series of bold chasms for a length of six miles, “the giant rocks rising perpendicularly to an elevation of 1200 feet, and the dark waters washing the base of these huge walls so closely that not a foothold is anywhere to be found. It is a ghostly gorge on the sunniest day, but when its habitual gloom is deepened by the shadow of a stormy sky, it grows painfully oppressive.”

Among the other channels of note are—the passage of the Potomac through the Blue Ridge at Harper's Ferry, famous for its picturesque mountain scenery, and worth, said Jefferson, “a voyage across the Atlantic to see; the deep canon of the Red River, on the north-west frontier of Texas; and the Cascades, where the Columbia River

breaks through the Cascade range on the boundary between Washington Territory and Oregon.

The celebrated Natural Bridge of Virginia, situated 63 miles from White Sulphur Springs, is the most remarkable of this interesting class of curiosities. Its span is almost 90 feet; and the middle of the arch is 45 feet in perpendicular thickness, which increases to 60 at its juncture with the vast abutments. The bridge, which is covered with soil, supporting shrubs of various sizes, is 210 feet high, and 60 feet wide. Across it passes a public coach-road, and Cedar Creek, with its pleasant rippling waters, makes its way through the ravine below.

A natural bridge in Alabama is described by Professor Tuomey as rivalling that of Virginia. It has a span of 120 feet, and its height is 70 feet. In California there are two remarkable bridges, having immense arches, whose surfaces appear as if carved into clusters of beautiful fruits and flowers, doubtless the result of volcanic action at some remote period. The largest of these is 20 feet high and 80 wide. In Kentucky also there is a natural bridge 30 feet high, with a span of 60 feet, located amidst delightful scenery.

The Pictured Rocks in Michigan are composed of sandstone of various colours, and worn by the wind and waves into resemblances of ruined temples and castles. One very striking object is the Doric rock, a colonnade of four round pillars, the diameter of which is from 3 to 7 feet. Their height is 40 feet, and they support an entablature 8 feet thick and 30 feet across. These rocks extend a distance of about 12 miles, and rise 300 feet above the water. In Dacotah Territory near the head waters of the White Earth River is a valley which looks as if it had sunk away leaving standing all over it thousands of prismatic and columnar masses, frequently capped with irregular

pyramids, stretching up to a height of from 100 to 200 feet or more.

The Profile Rock, or "Old Man of the Mountain," is a mountain in New Hampshire, which has a well-defined profile of the human face. The mass of rock forming it is 80 feet in height, and half a mile from the pass below, from which the profile is seen. In New Marlborough, Massachusetts, a rock of 30 or 40 tons is so nicely balanced that the finger may set it swinging. The Peaks of Otter in Virginia are famous mountain heights, the highest of which rises abruptly 4200 feet above the plain.

A number of cavities or depressions in the surface of the ground, called sink-holes, are found in various parts of the Union. In Florida one called the Great Sink is a large basin which receives the drainings of the group of hills, by which it is surrounded; the waters disappearing through the sink into the earth. In Kentucky are found several of these extraordinary natural curiosities, mostly in the shape of inverted cones, from 60 to 100 feet in depth, and from 60 to 300 feet wide at the top. Their sides and bottoms are usually covered with willows and aquatic productions, and the sound of waters can often be heard flowing under them. Streams of considerable size disappear in several places, and afterwards rise again; one spring near Mumfordsville in the same State, rises and falls 12 or 15 inches every 24 hours; and another, called Sinking Creek, disappears in the earth through a sink-hole, and does not reappear for a distance of five miles. Another sink-hole in the same vicinity has been descended 275 feet, by means of a rope, without finding bottom.

A great natural wonder of the vegetable world is the mammoth tree in California. A grove of 427 trees, the largest of which are 30 feet in diameter, and 300 feet in height, is in Mariposa County. It is the largest species of

tree in the world, and this is the largest collection. The grove is about twenty miles from the Yosemite Valley, and about 4500 feet high on the western slope of the Sierra Nevada. When the traveller enters the grove he sees on all sides of him these huge giants of the forest, varying from 20 to 34 feet in diameter, and from 275 to 325 feet in height. The grove covers a space half a mile wide and three-quarters of a mile long. [There is one tree 34 feet in diameter; two trees of 33 feet; thirteen between 25 and 33 feet; thirty-six between 20 and 25 feet; and eighty-two between 15 and 20 feet. One very large tree has fallen, and a considerable portion of it has been burned; but appearances indicate that it was nearly 40 feet in diameter, and 400 feet high. The mammoth tree is found only in a few small groves, of which six or seven are known, though probably there are others in unexplored parts of the Sierra Nevada. The Calaveras Mammoth Grove was the first discovered, and attracts the greatest number of visitors. There are in this grove ten trees 30 feet in diameter, and eighty-two between 15 and 30. One of the trees, which is down, must have been 450 feet high, and 40 feet in diameter. The "Horseback Ride," one of the notabilities of the place, is a hollow tree, which a man on horseback can ride through. One tree which was stripped of its bark for a height of over 100 feet, continued green and flourishing two and a-half years, and some of its branches remained green seven years later.

Some of the larger trees have been ascertained to be two thousand years old; and many of the smaller ones will still flourish for the next thousand years. Many of the older trees are hollow, and one in the Calaveras Grove, called "Uncle Tom's Cabin," has an open space under it of more than 12 feet square. The largest trees seem to end abruptly at the top, having been broken off

by the snow, which often falls to a great depth upon the Sierra Nevada. Occasionally two or three trees may be seen which are united at the ground, although they may have been 20 feet apart when young.

In 1854, one of the largest trees, 92 feet in circumference, and 300 feet high, was cut down. Five men worked twenty-two days in cutting through it with large augers. On the stump, which has been smoothed off, there have been dancing-parties and theatrical performances; and, for a time, a newspaper, called "The Big Tree Bulletin," was printed there. A portion of the bark of this tree to the height of 116 feet is now in the Crystal Palace, Sydenham. It is put together in its original form on a framework of wood, and is 31 feet in diameter at the base. The bark is 18 inches thick. The rings of this tree were counted, and its age was variously estimated, according to the different methods of counting, at from 1900 to 3000 years.

Saratoga Springs, situated in the State of New York, 39 miles north from Albany, is the most popular watering-place in America, and one of the most celebrated in the world. It is visited by persons from all countries, and the constant stream of visitors arriving and departing imparts to the place a scene of great gaiety and bustle. The springs are quite varied as to chemical constituents and medicinal properties. Congress Spring is the one most celebrated, and its waters are bottled and sent to various parts of the world.

Lebanon Springs are situated in the State of New York, near the boundary line of Massachusetts. This place has become a great resort for visitors, who are attracted by the romantic scenery of the region, as well as the beneficial influence of its waters. The temperature of the spring is 72° Fahrenheit, which, being nearly

summer-heat, renders it delightful for bathing. The water is tasteless, and pure as crystal.

Bedford Springs are situated in Pennsylvania, in a narrow and romantic valley. The principal spring issues from a limestone rock, the water of which is clear and sparkling. On the west side of the creek is a sulphur spring, and one mile and a half north-east from Bedford is a chalybeate spring, surrounded with bog-iron ore.

Carlisle Springs are situated in Pennsylvania, on a branch of the Conodoguinet Creek, in a retired spot, surrounded by the fine scenery of the Blue Mountains. The water bubbles up from the slate formation, from which it derives a strong impregnation of sulphur.

Virginia Springs are among the most celebrated watering-places of America, and are visited every season by vast numbers, either in search of recreation and amusement, or to enjoy the benefit of the waters. They contain sulphate of soda, carbonate of magnesia, chloride of sodium, per-oxide of iron, organic matter, iodines, sulphate of magnesia, phosphate of lime, and precipitated sulphur. The gaseous contents are, carbonic acid, sulphuretted hydrogen, oxygen, and nitrogen. They are situated in an elevated and beautifully picturesque valley, hemmed in by mountains on every side; having the Hot and Warm Springs on the north—the former 35, and the latter 40 miles distant; the Sweet, 17 miles to the east; the Salt and Red on the south-west—the former 24, the latter 41 miles distant; and the Blue Sulphur, 22 miles to the west of Virginia.

The Warm Springs, North Carolina, are situated on the east bank of the French Broad River, 282 miles west from Raleigh, the capital of the State. The surrounding scenery, especially that traversed by the river, is admirable. The river is shut in on both sides by

mountains; in many places rounding high, bluff points; and the scenery is very wild, rugged, and picturesque. The climate of this region is one of the most salubrious in the world.

The Hot Springs, in Arkansas, are situated about 60 miles from Little Rock. From a ridge of land forming a steep bank, 150 feet high, projecting over Hot Spring Creek, more than 100 springs issue at different elevations, with temperatures varying from 135° to 160° Fahrenheit. These springs are visited annually by thousands of people, and are particularly noted for the cure of rheumatism. There is a cold spring so near one of the warm springs that a person can put one hand in cold and the other in hot water.

Ballaston Spa, Avon Springs, New Lebanon Springs, and Sharon Springs, in New York; Brandywine Springs, Delaware; Sweet Springs, in Virginia; Herodsberg and Drennan Springs, Kentucky; Warm Springs, in Tennessee; Blount Springs, Alabama; and Glenny Springs, South Carolina, and many others, are celebrated.

ANTIQUITIES.

The antiquities found within the limits of the United States are not so important as those of Central America, Mexico, and Peru, but are from their great age almost equally interesting. Unlike the massive edifices which still rear their crumbling, spectral fronts amidst the forest of Central America, the more northern and eastern remains indicate only that degree of civilization attained by a rude agricultural society. Such are those gigantic

mounds erected with geometrical precision on the terraces of the Mississippi Valley, and extending from the lakes southward to the gulf. In Georgia are several of these mounds, one of which, of a semi-oval form, 2000 feet long, 37 high, and surrounded by a ditch, has been found to contain human remains. In Louisiana mounds have been found containing human remains, pottery, arrow heads, stone hatchets, relics cut in the shape of a curve or crescent, and in one instance a gold ornament worth \$8 was found. A mound at Fort Hill, Illinois, manifestly constructed for defence, has a line of circumvallation nearly four miles in extent, and from 10 to 20 feet in height. Many have within their lines artificial reservoirs for water, and other unmistakable provisions for withstanding a siege. Besides these defensive works, and sometimes included within them, are structures of a religious character, consisting of mounds of regular outline, in the form of octagons, circles, and other geometrical figures. One of these, near Cahokia, Illinois, is 700 feet long by 500 broad at the base, and 90 feet high. Another, in Adam's county, Ohio, is in the form of a serpent 1000 feet in length, extended in graceful curves, and terminating in a triple coil at the tail. The mouth is open, and apparently in the act of swallowing an oval figure, which rests partly within the jaws. The facts connected with the monuments of the Mississippi Valley indicate that the ancient population was numerous, and widely spread, and essentially homogeneous. Many of the mounds indicate a dense agricultural population, and a state of society very different from that of the modern race of Indians which inhabited the same country. Many facts, such as the former denudation by overflow of mounds now far removed from the highest floods, and the formation of an additional terrace or river bank since their construction, demonstrate the great antiquity of these remains.

By whom they were built, and whether their authors migrated to other lands, succumbed to the powers of an alien race, or were swept out of existence by some direful epidemic or universal famine, are questions which, in the present condition of our knowledge, cannot be answered.

“ The solitude of centuries untold
Has settled where they dwelt.”

MOUNT VERNON.

Mount Vernon, the home and tomb of Washington, is on the banks of the Potomac, fifteen miles from Washington City. The domain was lately purchased from his descendants for the nation, for \$200,000, raised by subscriptions. The mansion is of wood, cut in imitation of freestone. On the eastern front there is a piazza reaching from the roof to the ground, under which it was the habit of Washington to walk to and fro every morning with military regularity. The interior has been preserved with care, and presents the same appearance now as during his lifetime. The new tomb, into which the remains of Washington were removed in 1830, stands a short distance from the house. It is a plain, solid structure of brick, with an iron gate at the entrance, through the bars of which may be seen two sarcophagi of white marble, in which, side by side, slumber in peaceful silence the father of his country and his amiable wife. The old tomb, fast going to decay, is in a more picturesque situation than the new one, being on an elevation in full view of the river.

CHAPTER XI.

ARMY—NAVY—POST OFFICE—REVENUE—NATIONAL
DEBT—BANKS—REAL AND PERSONAL PROPERTY, ETC.



ARMY.

IN 1789, Congress, in pursuance of the provisions of the Constitution, making it the duty of Congress to "raise and support armies," and "to provide for the common defence," established a Department of War, and in 1776 a number of "Original Rules and Articles of War" were enacted, which form the military code which governs all troops in the service of the United States. In 1790 the rank and file of the army, as fixed by Act of Congress, amounted to 1216 men. The next year another regiment 900 strong was added, and in 1796 the regular army consisted mainly of a small body of artillery and engineers, two companies of light dragoons, and four regiments of infantry of eight companies each. At this strength of about 14,000 the force was kept till the outbreak of the Civil War in 1861. The total number of men called into the field from the commencement of the war till its close in 1865 was 2,039,748. Of these it is calculated that 580,000 died of disease or wounds received in battle. The Southern army was entirely disbanded in April, 1865; but of the Northern army there remained 210,000 on the

rolls on July 31, 1865. By order of the War Department in 1865, the United States and Territories were classified under five military divisions: the Atlantic, with headquarters at Philadelphia; the Ohio, at St. Louis; the Gulf, at New Orleans; the Tennessee, at Nashville; and the Pacific, at San Francisco. These divisions are subdivided into 18 military departments, each under a special commander. The nominal strength of the militia force of the United States, according to the official returns of the Secretary of War, is shown at 50,110 officers, 2,225,870 rank and file. Total 3,245,193.

THE NAVY.

It was not till 1789, nine years after the Government of the United States was organized, that a navy department was created by Congress, and so late as 1861 the naval force consisted of only 41 men-of-war in active service, most of which were sailing vessels. On the commencement of the Civil War, Congress decreed the creation of a steam navy; and in 1865 the number of vessels possessed by the United States Government was 610.

At the close of the war the number of vessels, according to the Navy Register for 1866, was 586. Of these 255 have been disposed of by sale, and 13 have been lost. The number of vessels retained in the service is 318. The largest iron-clad in the United States navy is the "Dunderberg," built at New York, and launched early in the year 1865. This vessel has a tonnage of 4300 tons, and carries 14 guns. The United States possess eight dockyards, namely—Portsmouth, Charleston, Brooklyn, Philadelphia, Washington, Norfolk, Pensacola, and Mare

Island. Norfolk and Pensacola were destroyed during the Civil War; Mare Island, on the Pacific, is as yet unfinished.

POST OFFICE.

The receipts of this department for the year ending June, 1865, amounted to \$14,556,158 (£2,911,231), and the expenditure to \$13,694,728 (£2,738,945), showing an increase compared with the previous year at the rate of 17 per cent. on the receipts, and 8 per cent. on the expenditure. The number of postage stamps and stamped envelopes issued amounted to \$12,847,437 (£2,569,489), \$1,623,138 more than the previous year. The mail service in operation in June, 1865, embraced 6012 routes, of the aggregate length of 142,340 miles. Railway post-offices have recently been established on the principal lines. The aggregate postage, sea, inland, and foreign, upon the correspondence exchanged with foreign countries, amounted to \$1,819,928, of which \$1,449,530 accrued on the mails exchanged with Great Britain, France, Prussia, Bremen, Hamburg, and Belgium; \$275,197.06 on the mails exchanged with the British North American Provinces; and \$95,200.74 on the mails transmitted to and from the West Indies, and Central and South America. The number of post-offices established is 28,882.

Mails for the United States are made up in London every Wednesday and Saturday evening, closing at six o'clock. They are taken up at Queenstown on the following day by the Liverpool steamers. Mails for Europe are made up in New York on the same days. The postage on letters between the United States and Great Britain is, for each half ounce one shilling if paid in the latter country, and 24

cents if paid in the former. Prepayment is optional on either side, and when prepaid, letters are not subject to a further charge on delivery. Newspapers must be prepaid in either country, the postage being one penny in England, and two cents in the United States; the same sum is also charged on delivery in each country. The system of money orders was first commenced in the United States in 1864, and in 1865 420 offices had been established.

Periodical works not of daily publication, issued in the shape of *pamphlets*, may be sent from England to the United States, at the following rates:—Not exceeding 2 oz., 1d.; above 2 oz., but not exceeding 3 oz., 6d.; above 3 oz., but not exceeding 4 oz., 8d.; with an addition of 2d. for every additional ounce up to 16 ounces, *above which the privilege does not extend*. At the same rate of postage, any pamphlet not weighing more than 8 oz. (even though it be not a periodical publication) may be sent to the United States. This postage is only the British portion, an equal sum being charged on delivery. The same rates and conditions apply to publications from the United States to Great Britain, two cents being equal to one penny. The periodical works or pamphlets must always be sent in a cover open at the ends (not more than one being sent in a single cover), and the postage must be prepaid. Other printed papers or books (except those specified above), addressed to the United States, are liable to letter rate of postage. There must be no writing, or other marks upon such periodical works, pamphlets, etc., or upon the covers, except the names and addresses of the persons to whom they are sent; nor upon the covers must there be any printing, except the names and addresses of the persons to whom they are sent, and the names and addresses of the senders. Any other writing, etc., will render the packets liable to letter rates of postage.

REVENUE.

The aggregate receipts of internal revenue for the years 1863, 1864, and 1865, are returned as follows : —

1863.....	\$41,003,192
1864.....	116,850,672
1865.....	211,129,529

The receipts and expenditure for the five years ending 1864, were as follows :—

Years.	Customs.	Internal and Direct Taxes.	Sales of Land.	Loans and Treasury Notes.	Total.
1860	\$53,187,512	.....	\$1,778,558	\$20,786,808	\$76,841,408
1861	39,582,126	.....	870,659	41,895,340	83,371,640
1862	49,056,398	\$1,795,332	152,204	529,692,461	581,628,181
1863	69,059,642	39,125,892	167,617	595,595,727	706,995,493
1864	102,316,152	157,728,231	588,333	618,114,884	878,746,601

ITEMS OF EXPENDITURE, 1860 to 1864.

Years.	Civil List.	Navy.	War.	Interest of Debt.	Total.
1860	\$6,077,008	\$11,514,649	\$16,472,202	\$3,144,620	\$63,154,730
1861	6,074,141	12,387,156	23,001,530	4,034,157	66,571,426
1862	5,939,009	42,674,569	394,368,407	13,190,324	474,744,776
1863	6,350,618	63,211,105	599,298,600	24,729,846	714,609,987
1864	8,059,177	85,733,292	690,791,842	53,685,421	865,234,084

The above does not include payments off National Debt, which would increase the expenditure to the following accounts :—

1860 ..	\$77,055,125
1861 ..	85,387,313
1862 ..	570,841,700
1863 ..	895,796,630
1864 ..	1,298,144,656

THE NATIONAL DEBT.

The public debt of the United States on the 25th of April, 1862, was officially stated at \$523,299,945; and on the 10th of April, 1863, at \$939,497,359—an increase in 350 days of \$1,189,135 per diem. On the 26th of April, 1864, it was \$1,656,815,105—an increase in 381 days of \$1,882,723 per diem. On the 31st of March, 1865, it stood at \$2,366,955,077—increasing in 339 days at the average rate of \$2,094,808 per diem. On the 1st day of June, 1866, it was \$2,799,979,450, of which \$1,108,000,000 is payable in gold, and \$1,053,000,000 in the legal currency of the country. The most careful and liberal estimate of the Fiscal department of the Government fixes the ultimate war debt at \$3,000,000,000. This debt is held almost entirely by American citizens, not over \$300,000,000 being held abroad. The immediate resources of the Government for the year closing the 30th of June, 1865, were from customs, internal revenue, etc., \$318,251,589, of which \$82,000,000 was in gold from customs. The annual charge on the revenue, estimating the interest on \$3,000,000,000 of debt, cannot exceed \$165,000,000, leaving an excess of revenue for other purposes of \$231,000,000.

The following is a statement of the Public Debt on the 1st of May, 1866:—

Debt bearing Coin Interest.

Five per cent. bonds	\$198,241,100	
Six per cent. bonds of		
1867-68	18,323,591	
Six per cent. bonds of 1881..	283,744,151	
Six per cent. 5-20 bonds	685,784,000	
	<hr/>	\$1,186,092,842

Debt bearing Currency Interest.

Six per cent. bonds	\$4,634,000	
Temporary loan.....	131,497,853	
Certificates of indebtedness..	62,620,000	
One and two-year five per		
cent. notes.....	6,036,900	
Three-year compound interest		
notes	167,012,141	
Three-year 7-30 notes	816,512,650	
	<hr/>	\$1,188,313,544
Matured debt not presented for payment..		877,729

Debt bearing no Interest.

United States notes	\$415,164,318	
Fractional currency	28,192,017	
Gold certificates of deposit ..	9,036,420	
	<hr/>	\$452,392,755

Total Debt..... \$2,827,676,870

Amount in Treasury.

Coin.....	\$76,676,407	
Currency.....	61,310,621	
	<hr/>	\$137,987,028

Amount of Debt, less cash in Treasury... \$2,689,689,842

BANKS.

The charter of banks throughout the United States is wholly in the hands of the State authorities, and the multiplication of banks on a sound basis, with increased aggregate capital, is one of the most significant features of the prosperity and increase of the country. The first bank which went regularly into operation in any of the States was established in the city of Boston, 1784, where it still exists. A law was passed by the legislature of New York in 1838, and revised in 1843, which provides that any individual or association may engage in the business of banking on depositing with the State Comptroller securities either in bonds or mortgages on real estate, bearing interest at 6 per cent., or United States or New York Stocks, on receipt of which securities, the parties depositing the same are supplied with an equal amount of notes, numbered, registered, and signed by the State Comptroller; and a similar provision has been adopted in many other States. Free banking, or general banking laws have been enacted with varied success in most of the States. Weekly returns of the condition of the banks in the city of New York are required to be published. In 1853 a clearing house was established in that city, and the average amount cleared annually is over \$6,000,000,000.

VIEW OF THE CONDITION OF THE BANKS IN THE UNITED STATES
FROM 1858 TO 1862.

	1858.	1860.	1862.
Number of banks & branches	1,422	1,562	1,492
LIABILITIES.			
Capital paid in	\$394,622,799	\$421,880,095	\$418,139,741
Circulation	155,208,344	207,102,477	183,692,070
Deposits	185,932,049	253,802,129	296,322,400
Due to other banks	51,169,875	55,932,918	61,144,550
Other liabilities.....	14,166,713	14,661,815	21,633,003
Profits, etc.....	47,495,973	46,479,873	31,218,850
Total liabilities	\$848,595,753	\$999,859,307	\$1,012,150,614
RESOURCES.			
Loans and discounts	583,165,242	691,945,580	646,680,715
Stocks	60,305,260	70,344,343	99,010,960
Real estate	28,755,834	30,782,131	32,326,650
Other investments	6,075,906	11,123,171	13,648,006
Due by other banks	58,052,802	67,235,457	65,256,581
Notes of other banks	22,447,436	25,502,567	25,253,518
Cash items	15,380,441	19,331,521	27,827,970
Specie	74,412,832	83,594,537	102,146,214
Total resources	\$848,595,753	\$999,859,307	\$1,012,150,614
Aggregate cash, <i>i.e.</i> , of circulation, deposits, and dues to other banks	392,310,268	516,837,524	541,159,020
Aggregate cash means, <i>i.e.</i> , of specie, cash items, notes of other banks, and dues from other banks	170,293,511	195,664,082	220,484,283
Gold and silver in U. S. Treasury	10,229,229	6,695,225	16,210,100
Specie in banks and treasury	84,642,061	90,289,762	118,356,314

Since the expiration of the United States Bank Charter, in 1836, there has been no general national bank, but since the war there has been established by Congress in most of

the individual States, what are termed National Banks. The bills of any one of these may be cashed at par by the State banks in any other State, unlike the bills of the old banks, which were often subjected to heavy discount in distant States. Established in 1863, their progress may be gathered from the following table :—

October, 1863, the number of				Capital.	Circulation.
Banks was	94			\$7,184,715	
In April, 1864	„	„	357	42,204,474	\$12,144,650
In October, 1864	„	„	524	99,339,400	51,394,150
In April, 1865	„	„	973	225,246,300	111,634,670
In October, 1865	„	„	1,650	394,960,333	179,981,520

The amount of notes furnished to the National Banks up to and including the 31st of October was a little over \$205,000,000. In addition to the United States notes, there were also outstanding \$32,536,900 five per cent. Treasury notes, and \$173,012,140 compound interest notes, of which it is estimated that \$30,000,000 were in circulation as currency.

The paper circulation of the United States, on the 31st of October, 1865, was substantially as follows :—

1. United States notes and fractional currency	\$454,218,038.20
2. Notes of the National Banks	185,000,000.00
3. Notes of State Banks, including out- standing issues of State Banks con- verted into National Banks.....	65,000,000.00
	<hr/>
	\$704,218,038.20

The returns of savings' banks, in the few States where annual and accurate reports are published, furnish definite information respecting the material condition of the labour-

ing classes. In the State of New York, the deposits in the savings' banks increased from 1858 to 1861 as follows:—

1858.....	\$41,472,000	|	1860	\$58,178,000
1859.....	48,194,000	|	1861	67,440,000

The returns of the savings' banks of Massachusetts are more complete than those of New York. Taking the ten years from 1850 to 1860, the deposits in this State increased 231 per cent. In the same period the population of the State increased about 24 per cent.; the total valuation, about 50 per cent.; and the bank capital, about 75 per cent. The accumulation of industrial savings, therefore, exceeded all the other ratios of State development in the above-mentioned period. The deposits from 1860 to 1863 (inclusive) have been as follows:—

1860.....	\$45,054,000	|	1862	\$50,403,000
1861.....	44,785,000	|	1863	56,883,000

Returns from the other New England States show a similar progressive increase of deposits during the last few years; and the same is also probably true of the other Northern States.

THE NATIONAL SECURITIES.

The "Seven-thirties" represent a Currency Loan having three years to run, and then convertible into a gold interest 6 per cent. stock, having twenty years to run, but with the right reserved to the Government of paying off the loan, in gold, at any time after five years. The term "Seven-thirties" is derived from the rate of interest which these three-years convertible notes bear, to wit, two cents per

day on each \$100, or for 365 days, seven dollars and thirty cents on each \$100.

The term "Five-twenties" is applied to the 6 per cent. gold-bearing bonds of the United States, to which twenty years half-yearly coupons are attached, but which may be paid off by the Government, on due notice to the holders, at any time after five years.

The term "Ten-forties" is applied to the 5 per cent. gold-bearing bonds of the United States, to which half-yearly coupons are attached for forty years, but which may be paid off in gold on notice to the holders, at any time after ten years.

The long, or unconditional 6 per cent. gold-bearing loan, known as the 6 per cent. of 1881, cannot be redeemed by the Government at all, except by purchase.

The outstanding and authorized totals of each of the above were, May 1, 1865, as follows:—

Seven-thirties	\$600,000,000
Five-twenties	596,545,900
Ten-forties	172,770,100
Sixes of 1881	281,561,400

Total	\$1,650,877,400
Interest in currency on.....	\$600,000,000
Interest in gold on.....	1,050,877,400—\$1,650,877,400

In addition to the gold interest stocks here classified, there is outstanding \$48,868,891 of the old funded 5 and 6 per cents. of the United States, upon which the interest is paid in gold, and the principal of which will be redeemed in gold when due.

The term "Greenbacks" and "Legal Tender" are convertible. All the greenbacks are legal tender; but \$433,160,569 are of the ordinary circulation, free of in-

terest, and \$226,000,000 bear simple or compound interest, payable on the maturity of the notes, most of them 6 per cents., payable three years after 1864, the interest compounded in a table on the back of the note every six months.

The currency of the United States is based on a decimal system, of which the dollar forms the base, or unit. The gold coins are of five denominations, to wit:—The Double Eagle, worth \$20, the largest gold coin issued in the world; the next in value is the Eagle, of the value of \$10; then follow the Half-Eagle, \$5; and the Quarter-Eagle, \$2½; and the Dollar, of the value of a hundred cents. The following coins are always of silver:—The Half-Dollar, 50 cents; the Quarter-Dollar, 25 cents; the Dime (from *decem*, ten), 10 cents; the Half-Dime, 5 cents. The Cent (Latin, *centum*, a hundred), the 100th part of a dollar, is composed of copper alloyed with nickel. The Mill is a nominal sum (Latin, *mille*, a thousand), worth the 1000th part of a dollar. The cent has precisely the same value as the English halfpenny, but is less than half the size, owing to the nickel used in its composition.

REAL AND PERSONAL PROPERTY.

The increase in the value of real and personal property of the whole United States for the decennial period of 1850-60, as shown in the following table, was in the ratio of over 126 per cent. :—

STATES.	In 1860.	Increase since 1850.	Increase per cent. for 10 years.
Alabama.....	\$495,237,078	\$267,032,746	117·01
Arkansas	219,256,473	179,415,448	450·02
California	207,874,623	185,712,741	837·98
Connecticut	414,274,114	288,556,134	185·32
Delaware	46,242,181	25,179,625	119·54
Florida	73,101,500	50,239,230	219·74
Georgia	645,895,237	310,469,523	92·56
Illinois	871,860,282	715,595,276	457·93
Indiana	528,835,371	326,185,107	160·95
Iowa	247,338,265	223,623,627	942·97
Kansas	31,327,895	.....	.....
Kentucky	666,043,112	364,414,656	120·81
Louisiana	602,118,568	368,119,804	157·30
Maine	190,211,600	67,434,029	54·92
Maryland	376,919,944	157,702,580	71·93
Massachusetts	815,237,433	241,895,147	42·19
Michigan	257,163,983	197,376,728	330·13
Minnesota	52,294,413	.....	.....
Mississippi.....	607,324,911	378,373,781	165·26
Missouri.....	501,214,398	363,966,691	265·18
New Hampshire	156,310,860	52,658,025	50·80
New Jersey	467,918,324	267,918,324	133·95
New York	1,843,388,517	763,029,301	70·63
North Carolina	358,739,399	131,938,927	58·17
Ohio	1,193,898,422	689,172,302	136·54
Oregon	28,930,637	23,867,163	474·35
Pennsylvania.....	1,416,501,818	694,015,698	96·05
Rhode Island	135,337,588	54,828,794	68·10
South Carolina	548,138,754	259,881,060	90·15
Tennessee	493,903,892	292,657,206	145·42
Texas	365,200,614	312,460,141	592·44
Vermont	122,477,170	30,272,121	32·83
Virginia	793,249,681	362,648,599	84·17
Wisconsin	273,671,668	231,615,073	550·72
District of Columbia.....	41,084,945	27,066,071	193·06
Nebraska	9,131,056	.....	.....
New Mexico	20,813,768	15,639,298	302·24
Utah	5,596,118	4,610,035	467·50
Washington Territory	5,601,466	.....	.....
Total	\$16,159,616,068	\$8,925,481,011	126·45

The officially assessed value of the real and personal property of the United States in 1860 is thus stated at \$16,159,000,000. Large as this valuation seems, it is, nevertheless, in the opinion of the best statisticians, considerably below a true estimate; inasmuch as real property, in actual practice, is rarely valued, for census returns and for purposes of assessment, at more than two-thirds of its real value, while large amounts of personal property escape valuation and assessment altogether.

The following table shows the estimated or official valuation of the wealth of the country for each decennial period since 1791; the increased decennial percentage value; and the average property to each person.

Year.	Population.	Value of real and personal property.	Decennial per centage increase of wealth.	Average property to each person.
1790	3,929,827	(estimated) \$750,000,000	.....	\$187·00
1800	5,305,937	(estimated) 1,072,000,000	43 per cent.	202·13
1810	7,239,814	(estimated) 1,500,000,000	39 „	207·20
1820	9,638,191	(estimated) 1,882,000,000	25·4 „	195·00
1830	12,866,020	(estimated) 2,653,000,000	41 „	206·00
1840	17,069,453	(official) 3,764,000,000	41·7 „	220·00
1850	23,191,876	(official) 7,135,780,000	89·6 „	307·67
1860	31,500,000 (assumed)	16,159,000,000 (estimated)	126·42 „	510·00
1865	34,000,000	21,574,000,000	.....	634·52

EXCHANGE.

The par of Exchange between England and the United States is determined by the relative proportion of pure metal in the coined piece which forms the unit of price in the different commercial countries of the world; the alloy is reckoned of no value.

“To simplify the matter as much as possible, we will waive all considerations of the different standards of fineness, and state that the American dollar contains 23.22.100 grains of pure gold, and the English sovereign 113 grains of the same. Every person may not know that the sovereign is the coined piece of which the pound sterling is the money of account. A simple calculation in the rule of three, therefore, determines that the equivalent of the pound sterling is \$4.86.65.100 of American currency.

Thus, as 23.22.100 is to 1, so is 113 to \$4.86.65.100. But, through all the variations of the Mint Laws in the United States and elsewhere—indeed for ages—English merchants have been accustomed to value the pound sterling by the old Spanish Carolus pillar dollars now entirely out of circulation in Europe and America. Of these \$4.44.44.100 were equivalent to the pound sterling. It will be seen that it requires the addition of $9\frac{1}{2}$ per cent., with a scarcely appreciable fraction, to make the value of the pound sterling in American currency at the Exchange prevailing at the outbreak of the American rebellion.”—*Hunt's Merchants' Magazine*.

Thus	\$4.44.44.100
Add $9\frac{1}{2}$ per cent. premium of Exchange...	0.42.22.000
Total	<u>\$4.86.66.100</u>

EXCHANGE TABLE

Showing the value of Greenbacks at the different Rates of Exchange, from Par to 200; with rule for calculating the same.

	\$		s. d.	
With gold at Par	1	is equal to	4 2	(here 2 cents are equal to one penny.)
„	125 1	„	3 4	
„	130 1	„	3 2 6-13	
„	135 1	„	3 1 10-35	
„	140 1	„	2 11 6-14	
„	145 1	„	2 10 47-58	
„	150 1	„	2 9 5-15	(here 3 cents are equal to one penny.)
„	155 1	„	2 8 8-31	
„	160 1	„	2 7 $\frac{1}{4}$	
„	165 1	„	2 6 10-33	
„	170 1	„	2 5 7-17	
„	175 1	„	2 4 1-14	(here 3 $\frac{1}{2}$ cents are equal to one penny.)
„	180 1	„	2 3 $\frac{1}{2}$ 5-18	
„	185 1	„	2 3 1-37	
„	190 1	„	2 2 6-19	
„	195 1	„	2 1 27 $\frac{1}{2}$ -196	
„	200 1	„	2 1	(here 4 cents are equal to one penny.)

RULE.—To find the value of one dollar at any quotation, divide 10,000 by the quotation of gold, and the quotient will be the value in halfpence. Thus:—Gold at 175

$$175) 10,000 (57 \text{ 25-175 halfpence} = 2s. 4\frac{1}{2}d. 12\frac{1}{2}-175$$

875

1250

1225

25

LEGAL INTEREST AND USURY.

The laws relating to interest and usury differ considerably in the several States. In California, Oregon, and Kansas the legal rate is ten per cent., and in the other States it varies from five to eight per cent. Usury laws exist in nearly all the States, restricting interest to the legal rates; but public opinion is so far in advance of the law, that it is constantly evaded, and special agreements for the use of money are made in all the States, regardless of the usury laws. The average rate of interest in the Eastern and Middle States is seven per cent., in many of the Western States twelve per cent., and in California, as well as in other parts of the extreme west, much higher rates prevail. The Government rate for loans payable in currency is $7\frac{3}{10}$ per cent.; this has therefore been adopted by many of the States as the legal rate. This fraction is adopted for convenience of reckoning $7\frac{3}{10}$ per cent. being two cents per day on every \$100.

CHAPTER XII.

AMERICAN CHARACTERISTICS.

To the philosophical observer, the United States now presents a unique aspect. The most varied and heterogeneous population in the world exists upon terms of perfect equality, obeying the same laws, supporting the same institutions, and speaking the same language, with but a limited diversity of idiom or even pronunciations. Viewed in this light, America has been aptly termed "the grave of nationalities." Says a graphic American author, Henry Tuckerman:—"Whole communities now are nationally representative. Each people finds its church, its fêtes, its newspapers, costume, and habits organized in America. Every convulsion or disaster abroad brings its community of exiles to our shores. After the French Revolution, nobles and people flocked hither; after the massacre at St. Domingo, the Creoles who escaped found refuge here; famine has sent thousands of Irish; and in the West is a vast and thrifty German population. Hungarians make wine in Ohio; Jenny Lind found her countrymen on the banks of the Delaware; an Italian regiment was organized in a few days when New York summoned her citizens to the defence of the Union; and in that city the tokens of every nationality are apparent—the French *table-d'hôte*, the Italian *caffé*, the German beer-garden, image-venders from Genoa, and organ-grinders from Lucca,

theatres, journals, churches, music, and manners peculiar to every people, from the Jewish synagogue to the Roman convent, betoken the versatile and protected emigration. It is when the free scope and the mutual respect, the perfect self-reliance and undisturbed individuality, of all these opposite demonstrations, indicative of an eclectic, tolerant, self-subsistent social order, combination, and utterance, pass before the senses, and impress the thought, that we realize what has been done and is doing on this continent for man as such ; and the unhallowed devotion to the immediate, the constant superficial excitements, the inharmonious code of manners, the lawlessness of border and the extravagance of metropolitan life, the feverish ambition, the license of the press—all the blots on the escutcheon of the Republic, grow insignificant before the sublime possibilities whereof probity and beneficence, tact and talent, high impulse and adventurous zeal, may here take advantage." The basis of the immense variety of races is the English and Scotch emigration ; though, for some years past, that of Ireland has far exceeded the contribution of all the rest of Europe put together. The German element is also largely represented. On the Pacific, an entirely new element has of late years made its appearance ; and China has also commenced pouring in her quota.

In the midst of all this seeming chaos of nationalities, permeating, vivifying, controlling, and characterizing the whole, the Anglo-Saxon element is pre-eminent. It is a common mistake to suppose that, inasmuch as the population of the United States is heterogeneous and varied, that it is therefore indiscriminate, or compounded of the many elements which it receives and numbers. This, however, is far from being the case. Each population retains its entirety, preserving with pride and affection the recollection of its origin, and cherishing, sometimes to the third

generation, the customs, habits, and predilections of the father-land. The English element particularly clings to this exclusiveness. The descendants alike of the Puritans of New England, and of the Cavaliers who settled Virginia, have scarcely intermixed in the least with any of the races by which they are surrounded; and, despite occasional heartburnings, have ever cherished the warmest affection for their ancestral home. The very name of England is dear to this, the American people proper. The hope of one day visiting the scenes hallowed by the genius of Milton, and Shakespeare, and Scott, is fondly cherished by the educated classes. Indeed, it is doubtful whether his native country has the same high degree of romantic interest for the Englishman as for his descendant in America, who spends his life in weaving a cluster of associations drawn from the history, the poesy, and the wonderful prose fiction of a land which he has never seen!

The Anglo-American, in his good as well as in his bad traits, is essentially English. Nearly every peculiarity may be traced to the influence of locality, institutions, or other circumstances. The Government being democratic, there is less of the subserviency and humble civility which characterize the lower classes in Europe; but ample compensation for the lack of the more refined observances of old communities is found in the frankness and cordial simplicity which abound everywhere. The greatest freedom of intercourse prevails, and a total absence of the comparatively formal manners of European society entirely obviates the sense of loneliness that oppresses the unaccredited stranger in the Old World. The people are free from the depressing anxieties which accompany the fierce struggle for existence in olden communities, and exhibit an inexpressible buoyancy which is contagious. There is an elastic spring in the very gait of an American; his

movements are quick and nervous, and a certain dash accompanies his most ordinary actions.

The unceasing bustle which pervades all American society forces itself upon the observation of every foreigner. The Americans are certainly a fast people; they eat fast, talk fast, and walk fast. They seem to be constantly inhaling an extra proportion of oxygen, or to be overcharged with electricity. Indeed, some theorists have gravely endeavoured to account for the redundant excitability and energy of the Yankee, by attributing it to the over-accumulation of animal electricity in an exceedingly dry atmosphere. But this theory will not bear investigation, as we find the same dryness of atmosphere in the interior of all great continents. It is inhaled equally by the lazy Mexican of the table-land, the contented Chilian, and the half-civilized native of Thibet, and its effects upon the stolid predecessor of Brother Jonathan in America were not perceptible. The more reasonable hypothesis is, that the stimulus of that unequalled activity which we see in the United States is not physical but intellectual; that it is the abundant infusion of hope into the moral atmosphere. The materials and facilities for the acquisition of wealth are so abundant as to be within easy reach of all, and no one need despair of attaining a competency by the exercise of a reasonable amount of prudence and economy. The abundant opportunities for profitable investments have also given birth to a spirit of economy and temperance in the industrial classes, utterly unknown in Europe: something analogous to it might spring up in England if savings' banks offered to depositors ten per cent. interest, with a chance of realizing a hundred. In most of the States money may be lent with perfect safety, at ten to twenty per cent., and investments in land and "town lots" are often in a few years doubled, trebled, or quadrupled in

value. The dread of becoming poor, which haunts the existence of the middle classes in England, is unknown in America; the pawnbroker's shop is almost unknown, and the beggar and vagrant are seldom seen. Moreover, a limit is fixed to the impoverishment of the labouring classes by a peculiar feature in the laws of most of the States, the operation of which seems to have been heretofore overlooked by those who have endeavoured to gain an insight into American institutions. This is what is known as the "Homestead Exemption Law," by which is reserved to each family possessing property either a freehold or an equivalent, of the value of from \$500 to \$1000, such reserved property remaining free from execution for debt. The tools of a mechanic are also exempt from seizure should misfortune fall upon him. Thus no man, except by his own free will, can ever be reduced to the condition of a pauper. In California the exemption includes property to the value of \$2000 (£400).

With laws and institutions favouring distribution, and with unlimited room for expansion, it is not likely that pauperism will ever become an incubus on society. Says Mr. W. Chambers, in his "Things as they Are in America:"—"In no part of America did I see any beggars or ragged vagrants; and except in New York, the condition of which is exceedingly anomalous, I did not observe any drunkenness, there having been, as I understood, a great reform in this particular. I should say that, independently of the 'Maine Law,' public opinion on the subject of drinking usages is considerably in advance of that of England. Other things struck me favourably. I observed that all classes were well dressed. My attention was called to the fact, that when operatives had finished the labours of the day, they generally changed their garments, and were as neatly

attired as those in higher stations. It was also observable that mechanics in good employment occupy better houses, pay higher rents, and dress their wives and families better than is usual in England or Scotland; that they, in short, aim at living in greater respectability, and in doing so necessarily avoid such indulgences as would improperly absorb their means. It was agreeable to note that the English language is everywhere spoken well. I heard no *patois*, no local dialect. The tone of speech was uniform, though more nasal in some parts of New England than in other places."

To whatever cause attributable the Americans are certainly remarkable for sobriety. This spirit has manifested itself not only in the exercise of individual abstemiousness, but in the formation throughout the whole country of Total Abstinence Societies, whose members are numbered by hundreds of thousands. The most striking proof of the fact, however, is the existence of what are called "Maine Liquor Laws," from the circumstance that the first of the kind originated in the State of Maine. This law has been adopted throughout New England, and in some other States, and hundreds of individual counties have procured special enactments of the kind for their separate benefit. These laws having all been enacted under a system of universal suffrage, afford a striking proof of the intelligence and self-control of the mass of the American people. This dislike of intemperance exists to such a degree as to attach more or less odium and loss of caste to all engaged in the manufacture or sale of spirituous liquors. In most religious denominations it is a disqualification for membership in the church. The earnest desire manifested by all classes to educate themselves and their children is not less striking than their sobriety. Here again the people have made the Legislature

the instrument of accomplishing their wishes. The same bounteous public domain which offers the settler from every country a home without price, is made to afford his children the elements of a good education, without the expenditure of a dollar out of his own pocket.

As there is no man who may not hope to be rich, so there is no citizen so humble that he may not reasonably aspire to the highest position in the State. With all this, there yet exists a very clear distinction of classes. It must not be supposed that because the artisan may aspire to be President, that he moves in the same circle while an artisan. But there is nothing like caste. Each individual stands upon his own merits, and wealth and intellectual culture are the key to the best society. There are no sinecures in the Government, and no church establishment, furnishing snug livings, unburdened with actual duties. There scarcely exists a distinct class corresponding to the European idea of the "gentleman." Whether this gap in American society is matter of regret, it is hard to say; but it is not likely to remain unfilled. The accumulation of property goes on rapidly, notwithstanding the absence of entail and primogeniture, and doubtless the tendency of the funding of the immense national debt will be to widen and render more permanent social classification, founded on inoperative capital.

A peculiar feature of American society is the respect with which women are treated. This is manifested in every department of social life, and under all circumstances. No one ever thinks of retaining his seat in a railway carriage, or in a public assembly, if there is a woman standing near. Gentlemen of the highest station unhesitatingly yield precedence to females, no matter how humble. This superior consideration for the weaker sex extends further than mere courtesy. In many of the States the laws guarantee to

women separate ownership, and in case of the incapacity or intemperance of their husbands, separate control of their own property. In Texas, and one or two other States, her estate is not only distinct from that of her husband, but is entirely beyond his control. Female education is also conducted on a much broader and higher scale than in Europe. In America accomplishments are not the end, but only an incidental part, of the education of woman. She is taught music and painting, but she is also instructed in the sciences. Even physiology and anatomy form part of the training of every highly-educated woman; and the same may be said of those branches of social and political science usually considered totally incompatible with the female character. It is not surprising that with such advantages the superior intellectuality of American women should be a theme with all foreigners who visit the United States.

Side by side with so much that is excellent, there exist palpable defects, the result, perhaps, of a somewhat transitional state of society. The same democratic institutions which have had so wholesome an effect in softening the sharp lines of artificial distinctions, and infusing vigour and hope into all the transactions of life, have not bestowed unalloyed good. Universal suffrage, by making the uneducated masses the judge and rewarders of merit, have often had the effect of driving from the political arena men of learning and ability too profound to be appreciated by the half-informed, and to cause public offices—even those of a judicial character—to be often filled by individuals of little ability, in many instances by demagogues, who excel only in the art of courting public favour. Owing to this cause, it is an undeniable fact that mediocrity, both intellectual and moral, not only wins, but too often wins against superior merit. This exercises a baleful influence in every department of life. The success which rewards

shallow attainments, when accompanied with tact, has even to some extent discouraged thoroughness in educational training. Teachers of thorough erudition, in the European sense of the term, are rare; a fact the less surprising since the profoundest learning is rewarded at the same low figure with the services of the man of medium attainments. About \$2000 (£400) is considered a liberal salary for the erudite professor, the learned judge, and the eloquent divine. The result of all this is a degree of *sciolism* which it must be admitted accompanies that universal mental culture for which the American people are remarkable. It pervades the forum, the rostrum, and is found—with many honourable exceptions—in every department of literature, where its effects are felt in the number of trashy books and periodicals that issue annually from the press.

Other effects of the exuberance of civil liberty crop out in the prevalence of mob-law—now happily on the wane. A disposition to unduly magnify and laud themselves, to glorify their own power, and the freedom and happiness which they enjoy, has also been charged against the Americans, as it has been for centuries charged by the English against the French, and by the French against the English. On this point the judicious observer can only give a qualified assent when he reflects that national vanity is a universal characteristic of all nationalities in all ages.

These defects are mostly the consequence of imperfections by no means incurable, and will disappear before the introduction of educational qualifications for voters, longer tenures of public office; and, in fine, all those changes which make a new society an old society, and, while adding to its wisdom and experience, give rise to those necessary divisions of function and moderate social classifications indispensable to all civilizations.

AMERICANISMS.

By far the greater part of those peculiarities in idiom, pronunciation, and epithet, known as "Americanisms," are really no more than English provincialisms. The New England States, having been settled almost entirely by the Roundheads during the Revolution of 1640, are still to some extent characterized by the nasal tone which then so strongly marked their speech in England. For the same reason, New England, despite the influence of her wonderful free school system, still retains many English provincialisms. The people of that section use many English words as old as Chaucer. Few of these, however, are peculiar to the United States, for they may nearly all still be heard in the various counties of England; almost every glossary of English pronunciations containing some of those words now in common use in New England. Those parts of the British Isles which have contributed most to Americanisms (so called) are the counties of Norfolk and Suffolk, and the Scottish borders. Virginia, the Carolinas, and Georgia were, like New England, purely English in their origin; they have, however, less strongly-marked peculiarities of language.

In the South-Western States, more especially Louisiana, many words of a French and Spanish origin have found a permanent place in the language; and some have extended over the whole national area. Among those are the French *bayou*, *levee*, *crevasse*, *habitan*, *voyageur*; and the Spanish terms, *sierra*, *barranca*, *canon*, *rancho*, *fandango*, *lasso*, *stampede*, and *vamose*.

Terms derived from the aboriginal Indian language are numerous, and in common use over the whole continent. Among these are the names of animals—as *cayman*, *moose*,

opossum, raccoon, manitee; names of plants, articles of food, etc., as *persimmon, chincapin, pecan, maize, tobacco, hominy, succotash, mandioca*; articles of dress, social terms, etc., as *hammock, moccasin, wigwam, sachem, cazique, squaw, pappoos*, etc. There is a large class of words also common to the whole country, which have grown out of the peculiar social and political phases of the nation. Among these are, *canvass, mass-meeting, lobby, mileage, senatorial, gubernatorial, buncombe, squatter, backwoods, cane brake, cornshucking, diggings, prairie, pre-emption, savannah, location*, etc.

Besides the Americanisms proper, there is a class of cant words and phrases frequently used in conversation. Such are, *to acknowledge the corn, to flash in the pan, to cave in, to bark up the wrong tree, to wake up the wrong passenger, to pull up stakes, to walk into, to slope, to skedaddle*, etc.

Formidable as the list of Americanisms appears in works specially devoted to their collection, yet, owing to the general diffusion of education in the United States, the almost universal habit of reading newspapers and books, and the constant intercourse prevailing between the remotest sections, there is no country of equal extent on the globe where one language is spoken with greater purity and with as much uniformity. As a striking illustration of this, the traveller may traverse the whole Union, from Maine to Texas—a greater distance than that intervening between London and Constantinople—without meeting with as marked a deflection from the standard of correct English as he would in passing from one English county to another. Americanisms, though properly only consisting of terms and phrases which have originated in America, have been, as has been shown, divided into several distinct classes, covering a much wider scope; first, into words and phrases wholly new, or Americanisms

par excellence; secondly, old English words with new or obsolete meanings; thirdly, words which have become provincial in England, but are still in general use in America; fourthly, new methods of accentuation or pronunciation; fifthly, words and phrases derived from various European languages other than English; sixthly, aboriginal words.

The following list comprises those in most common use :—

- ACKNOWLEDGE THE CORN, to confess a charge or imputation.
 TO ALLOW, to conclude, to decide as true.
 BAGASSE, sugar-cane from which the juice has been pressed.
 BAGGAGE, used instead of luggage.
 BALANCE, meaning remainder.
 BANQUETTE, the name for the side-walk in some of the Southern cities.
 TO BARK UP THE WRONG TREE, a common expression to denote that a person has mistaken his object.
 TO BAT, to bat the eyes, in Southern parlance, is to wink.
 BAYOU (Fr.), in Louisiana, the outlet of a lake, a channel for water.
 BENDER, in New York, a spree, a frolic; to "go on a bender" is to go on a spree.
 BIG BUGS, people of consequence.
 B'HOYS, boys, a name applied to a class of noisy young men of the lower ranks of society in New York.
 BLUE, gloomy, severe, extreme, ultra.
 BOARDS, used to signify all kinds of boards, not over an inch in thickness.
 BOGUS, counterfeit, false, fraudulent.
 BOSS, an employer, or superintendent of labour.
 BONNY CLABBER (Irish, *baine*, milk; and *clabar*, mud), milk turned sour and thick.
 BOODLE, "the whole boodle of them," *i. e.* all, the whole.
 BOOKSTORE, a place where books are sold; it is the common term in the United States for what is called in England a bookseller's shop.
 BREADSTUFFS, anything from which bread is made.
 BUNCOMBE, or bunkum, speech intended to catch the applause or favour of the vulgar.
 BUREAU, universally used to the exclusion of "chest of drawers."
 CALICO, printed cotton goods; in England all cotton goods in the piece.
 TO CALCULATE, to suppose, to believe, to think, to expect, intend, etc.
 CAUCUS, a private meeting of the leading politicians of a party to agree upon the plans to be pursued at an approaching election.
 CAPTION, the heading of a chapter, section, or page.
 TO CAVE IN, to break down, give up.
 CHICKEN FIXINGS, in the Western States a chicken fricassee.
 CHORE, a small piece of domestic work, a little job, a char.

- CLAIM**, a piece of land which a squatter settles upon, with the intention of purchasing it when the Government offers it for sale.
- CLEVER**, good-natured, obliging; in England quick-witted or intelligent.
- CORDUROY ROAD**, a road or causeway constructed with logs laid together over swamps or marshy places.
- CORN**, means only maize, in England it means all small grain.
- CROOKED STICK**, a cross-grained, perverse person.
- CREEK**, a small river; in England a small arm of the sea.
- CRUEL**, one of the numerous substitutes for very, exceedingly.
- TO CRY**, to publish the banns of marriage in church.
- CUTTER**, a light one-horse sleigh.
- DEAD HEAD**, a person who gets something of commercial value without special payment or charge; persons who go by rail, travel in steamboats, or visit theatres without charge, are dead heads.
- DEAD HORSE**, work for which one has been paid before it is performed.
- DECK**, a pack of cards.
- DECLINATION**, the refusal to accept a nomination to office.
- DESK**, the pulpit in a church, and figuratively the clerical profession.
- DISREMEMBER**, to forget, used chiefly in the Southern States.
- DOGGERY**, a low drinking-house.
- DOLESS**, inefficient, he is a doless sort of fellow.
- DOLITTLE**, a drone, an idle person.
- DOMESTICS**, used only in the plural; domestic goods, *i. e.* cotton goods of American manufacture.
- DRY-GOODS**, a general term used by Americans to signify such articles as are sold by linen-draper, haberdashers, mercers, drapers, hosiers, etc. The word "haberdashery" is almost unknown.
- DULL MUSIC**, a term applied to anything tedious.
- ELEPHANT**, to see the elephant, is to gain experience of the world—generally at some cost to the investigator.
- ENDORSE**, to signify sanction or approval.
- EVENING**, from noon till dark is evening in the South and West; the term afternoon not being used.
- TO EVENTUATE**, to happen, to issue, to take effect, to result in.
- EVERLASTING**, very, exceedingly.
- EXPECT**, misused in application to past events, as "I expect it was."
- FALL**, used instead of "fell," as "to fall a tree."
- TO FAN OUT**, to make a show at an examination, alluding probably to the peacock spreading his tail.
- FEED**, used as a noun for grass, as tall feed, *i. e.* high grass.
- ON THE FENCE**, in politics, neutrality, or readiness to join the strongest party whenever it can be ascertained which is so.
- FILIBUSTER**, a freebooter.
- TO FIX**, in England means to fasten or make firm; in America it means almost anything in the way of putting in order, adjusting, mending, setting to rights, or making.
- FIX**, a condition, predicament, or dilemma.
- FIZZLE**, a ridiculous failure. The figure is that of wet powder, which burns out with a hissing noise, without producing any effect.

- TO FLAT OUT, to collapse, to prove a failure, a Western phrase applied to a political meeting—as, the meeting flatted out.
- FLOOR, used in Congress in the expression to “get the floor,” that is, to obtain an opportunity of taking part in a debate.
- FLUNK, a backing out, a total failure in a college recitation.
- FOREVER is one word in the United States, in England it is two.
- TO GET RELIGION, to become pious; in common use amongst certain sects.
- GO TO GRASS! be off! get out!
- TO GO ONE’S DEATH on a thing, is equivalent to “lay one’s life” on it.
- TO GO THE BIG FIGURE, to do things on a large scale.
- TO GO OFF, to expire.
- TO GO UNDER, to perish, to fail in business.
- GOING, travelling, as “the going is bad, owing to the deep snow.”
- GOUGE, to chouse, to cheat.
- GOUGER, one who wants more than he is entitled to.
- GUBERNATORIAL, pertaining to a governor.
- GUSH, a great abundance.
- HACK, in America, usually a hackney coach; in England a livery-stable horse.
- HARDWARE, this word is used in America to the exclusion of ironmongery; hardware store, an ironmonger’s shop.
- HEFT, weight, ponderousness.
- HELP, a servant, servants, or service.
- HIGHFALUTEN, highflown language, bombast.
- HOBOY, or HAUTOY, a nightman.
- HOMELY, plain-featured, or ugly, in America; in England it means pertaining to home, plain, simple.
- HOSS, a man remarkable for strength, courage, etc.
- HOSTILES, enemies.
- HURA’S NEST, a state of confusion.
- HURRYMENT, hurry, confusion.
- HYST, a violent fall.
- INAUGURAL, address of an official on his inauguration into office.
- INFAIR, the reception party or entertainment of a newly-married couple.
- KNOW-NOTHINGS, a political party of native Americans, which originated in the year 1853.
- KOOL-SLA, an American word of Dutch origin, signifying cabbage salad.
- LAMBASTING, a beating.
- LIMSY, weak, flexible.
- LITTLE END OF THE HORN, to come out at the little end of the horn, is said when a ridiculously small effect has been produced after great effort and much boasting.
- LOAFER, a lounge.
- LOAN, frequently used as a verb; in England, lend.
- LOOED, defeated, a term borrowed from the game called loo.
- TO LOVE, for to like, “Do you love pumpkin pie?” “I’d love to have that bonnet.”

- LOBBY, a verb, meaning to attempt to exercise an influence on members of a legislative body by persons not members.
- TO LOBBY THROUGH, is to get a Bill adopted by such influence.
- LOCATE, to designate the place of anything, to settle in.
- LOT, a small tract of land, such as the subdivisions of a town.
- LUMBER, sawn timber of every description, such as is intended for building. Lumbering means making lumber; lumberman a person engaged in making it; and lumber-merchant he who sells it.
- MAD, inflamed with anger, very angry, vexed.
- MAIL is the word ordinarily used instead of the word "post." Americans say "mail a letter," "send it by mail."
- MIDDLING INTEREST, the middle class of people.
- MUD SILL, the longitudinal timber laid upon the ground to form the foundation for a railway, hence figuratively applied to the labouring classes as the substratum of society.
- MUSIC, amusement, fun, "Jim is a right clever fellow, there is a great deal of music in him."
- MUSH, Indian meal, boiled in water, and eaten with milk or molasses; it is often called hasty pudding.
- MUSS, a corruption of mess, a state of confusion, a squabble, a row.
- NABY RED, a contraction for "ne'er a red cent," alluding to the copper cent.
- NIPPENT, impudent, impertinent.
- NIPPING, mincing.
- NOTIONS, small wares or trifles.
- OLD COUNTRY, a term applied to Great Britain.
- ONE HORSE, in the West, this term is applied to anything small, as a one-horse bank, a one-horse town.
- TO PADDLE ONE'S OWN CANOE, a figurative Western phrase, meaning to make one's own way in life.
- PANTALOONS, the common American name for trousers.
- PESKY, plaguy, confounded.
- PIMPING, little, petty.
- PIPE-LAYING, this term, in political parlance, means any arrangement by which a party makes sure of a certain addition to its legitimate strength in the hour of trial, that is, the election; in other words, "to lay pipe" means to bring up voters not legally qualified.
- POKY, dull, stupid.
- POOR WHITE FOLKS, a term applied to the poor white population of the South; also called by the blacks poor buckra.
- POLITICIAN, a person who busies himself with the management and contests of a political party. In England a statesman.
- TO PULL FOOT, to walk fast, to run.
- POSTED UP, well informed, thoroughly conversant with.
- RAILROAD, railroad track, railroad depôt, and railroad car, are the American names for the English railway line, railway station, and railway carriage. The American travels "in the cars," the Englishman "by rail." In the United States the iron horse is ordinarily a "locomotive," in Britain an engine.

RAISE, to rear ; in the Southern and Western States it is applied to individuals, as "he was raised in New York."

RECKON, used in some parts of the United States, as "calculate" in New England, and "guess" in New York.

RENDITION, for rendering.

TO RUN ONE'S FACE, to make use of one's credit, to run one's face for a thing is to get it "on tick."

SEASON, a common term in the South for a shower of rain, or period of wet weather, suitable for setting out tobacco and other plants.

SEMI-OCCASIONALLY, a cant phrase, meaning once in a while.

SHIN-PLASTER, a cant term for a bank note or any paper money, and especially such as has depreciated in value.

SHOOTING-IRON, a common Western term for a rifle, or fowling-piece.

SLANG WHANGING, political cant.

SMART, quick, active, shrewd, intelligent ; in England showy or witty.

SNAP, applied to sudden change of weather, as "a cold snap."

SOCDOLAGER, this strange word is probably a perversion in spelling and pronunciation of doxology, a stanza sung at the close of religious services, as a signal of dismissal ; hence a socdolager is a conclusive argument ; the winding up of a debate, a settler ; and figuratively, in a contest, a blow which brings it to a close.

SOFT CORN, flattery.

SOME PUMPKINS, a term in use in the South and West in opposition to the equally elegant phrase, "small potatoes." The former is applied to anything large or noble, the latter to anything mean.

SPARKING, to go a-sparking is to go a-courting.

TO SPLIT, to go at a rapid pace, to drive or dash along.

TO SPREAD ONESELF, to exert oneself.

SQUATTER, one that settles on new land without a title.

SQUATTER SOVEREIGNTY, the right of the squatters, or actual residents of a Territory, to shape their own institutions.

TO STAMPEDE, to cause to scamper off in a fright.

STRAPPED TIGHT, out of money.

TEETOTALLY, entirely, totally.

TO TELL ONE GOOD-BYE, is the Southern phrase to bid one good-bye.

TOOTING TUB, a puritanical term for a church organ.

TRAIN, a peculiar kind of sleigh.

TRIMMINGS, the accessories to any dish.

WIDE AWAKE, on the alert, ready.

WIRE PULLING, or wire working, political managings.

YANKEE, the popular name for the citizens of New England, but applied by foreigners to all the inhabitants of the United States. The name (Yengees or Yenkees) was originally given by the Massachusetts Indians to the English colonists, being the nearest sound they could give for "English." It was afterwards adopted by the Dutch on the Hudson, who applied the term in contempt to all the people of New England.

POPULAR NAMES AND MOTTOES OF STATES.

- ARKANSAS, the Bear State. Motto—*Regnant populi*, The People rule.
- CALIFORNIA. Motto—Eureka. I have found it.
- CONNECTICUT, the Land of Steady Habits, sometimes called the Blue Law State. Motto—*Qui transtulit sustinet*, Who planted still sustains.
- DELAWARE, the Blue Hen's chicken. Motto—Liberty and Independence.
- FLORIDA, Peninsular State. Motto—In God let us trust.
- ILLINOIS, the Sucker State, said to have arisen from the fact that the Western prairies are in many places full of holes made by the crawfish, out of which early travellers, by means of a hollow reed, sucked up the pure water which lay beneath. Motto—State Sovereignty. National Union.
- INDIANA, the Hoosier State; from *who's yere*, a gruff form of reception.
- IOWA, the Hawkeye State, from an Indian chief, named Hawkeye, who was the terror of travellers on its border. Motto—Our liberties we prize, our rights we will maintain.
- KENTUCKY, the Corn-cracker. Motto—United we stand, divided we fall.
- KANSAS. Motto—*Ad astra per aspera*, Through rough ways to the stars.
- LOUISIANA. Motto—Union and confidence.
- MAINE, the Border State. Motto—*Dirigo*, I direct, or take the lead.
- MASSACHUSETTS, the Bay State. The original name of the State was Massachusetts Bay. Motto—*Ense petit placidam sub libertate quietem*, By the sword she seeks peace under liberty.
- MARYLAND. Motto—Industry the means, and plenty the result.
- MICHIGAN, the Wolverine State, from the large numbers of wolves found there. Motto—*Tuebor*, I will defend it; *Si quaeris peninsulam amœnam circumspice*, If you seek a delightful country, look around.
- MINNESOTA. Motto—*L'Etoile du Nord*, The Star of the North.
- MISSOURI, the Puke State. Motto—*Salus populi suprema lex esto*, The public safety is the supreme law.
- NEW HAMPSHIRE, the Granite State, from the abundance of that rock.
- NORTH CAROLINA, the Old North State.
- NEW YORK, the Empire State. Motto—*Excelsior*, Onward and Upward.
- NEBRASKA. Motto—Popular Sovereignty.
- NEVADA, the Silver State.
- OHIO, the Buckeye State; from the Buckeye tree, which grows plentifully on the river banks. Its bark exhales an unpleasant odour.
- OREGON. Motto—*Alis volat propriis*, She flies with her own wings.

PENNSYLVANIA, the Keystone State. So called from its being the central State of the Union at the time of the formation of the Constitution. Motto—Virtue, Liberty, and Independence.

RHODE ISLAND, Little Rhody. Motto—In God we hope.

SOUTH CAROLINA, the Palmetto State. Motto—*Animis opibus que parati*, Ever ready with our lives and property.

TEXAS, the Lone Star State.

VIRGINIA, the Old Dominion. Motto—*Sic semper tyrannis*.

CHAPTER XIII.

CANADA.

THIS vast tract of country was discovered and partially explored in 1534, by James Cartier, a French navigator, who took possession of it in the name of the king of France, and erected a wooden cross as a "token" of occupancy. The origin of the name Canada is uncertain, the generally received opinion being that it was the term applied by the Indians to the country on both sides of the St. Lawrence when discovered by Cartier. Champlain was another early explorer, and by him was discovered the great lake to which his name was given, also the lakes Ontario and Nipissing. The country continued a dependency of France till 1629, when Quebec was captured by the British. In March, 1632, it was restored by the treaty of St. Germain, and it remained in the possession of the French till 1763, when, after a final struggle for supremacy, which lasted seven years, the whole country, then called the province of Quebec, was ceded to England.

Canada has an area of about 350,000 square miles. This area was in 1791 divided by Act of Parliament into the two separate provinces of Upper and Lower Canada, the former containing 150,000 square miles, and the latter 200,000. In 1840 they were united, although for some purpose the old territorial divisions still exist. Upper Canada is that part of the new United Provinces which lies to the south and west of the River Ottawa, and Lower Canada comprises the country to the north and east of that

river. The former is now called Canada East, and the latter Canada West.

The western boundary of Canada, west of Lake Winnipeg, is yet undefined. The River St. Lawrence, and Lakes Ontario, Erie, St. Clair, Huron, and Superior, with their connecting rivers, form a wonderful natural boundary between Canada and the United States, and an excellent means of communication of great extent.

Canada extends from the Gulf of St. Lawrence on the east, to the Rocky Mountains on the west, and is nearly three times the size of Great Britain and Ireland. The inhabited or settled portion of Canada covers already an extensive area of between 40,000 to 50,000 square miles. In the eastern section, or Lower Canada, the scenery is bold and imposing; on the lower part of the St. Lawrence both sides of the river are mountainous; and on the north side the range, which runs as far as Quebec, presents many sublime and picturesque aspects. On the south side the range called the Alleghanies, commences in Gaspé, follows the course of the river to within 60 miles of Quebec, where it turns south, and enters the United States. Above Quebec, on the north side of the river, and between that city and the River St. Maurice, the country rises gradually from the banks; and from thence to Montreal, it becomes abrupt, with considerable table ridges. On the southern side of the river, commencing at Gaspé, the country is but partially explored.

From Cape Chat to the Chaudiere, Canada extends along the south side of the St. Lawrence 257 miles, bounded by the line of the United States, in part defined by a high ridge of land. This district is traversed by ranges of hills, separated by extensive valleys. West of the Chaudiere, and extending to the 45th parallel, is a fertile stretch of country, which still further westward

becomes a luxuriant plain, through which run the rivers Richelieu and Yamaska. The southern part of this region, interspersed with ridges and considerable mountains, is possessed of varied and delightful scenery. The western, or upper section, is in general a champaign country, with gently undulating hills and rich valleys. At a distance of from 50 to 100 miles from Lake Ontario, there is a ridge of high rocky country running toward the Ottawa, or Grand River, and behind this is a wide valley of great extent, bounded on the north by an elevated and mountainous country. From Lake St. Francis, 35 miles above Montreal, to the Detroit, along the shores of the St. Lawrence and Lakes Ontario and Erie, there is not an elevation of any importance.

In the rear of the St. Lawrence, detached peaks of the Laurentide mountains attain an elevation of 2000 or 3000 feet above sea-level. The Notre Dame Mountains, in the district of Gaspé, are quite imposing; they vary in width from two to six miles, and in height from 2000 to nearly 4000 feet. Cape Torment, 30 miles below Quebec, is a round massive mountain 1000 feet high.

The St. Lawrence is the great river of Canada, receiving in its course all the lesser streams of the country. If we include the chain of great lakes, it may be said to rise in the St. Louis, a small stream which flows into Lake Superior at its western extremity; thence its course is through the lakes north-easterly to the sea. Its whole length is about 3000 miles, of which 672 miles represent the St. Lawrence proper, from the lakes to the sea. Its breadth varies from 1 to 90 miles, and by the aid of the Welland, St. Lawrence, and Lachine canals it is navigable for the whole distance of 3000 miles, vessels from Europe landing their cargoes at Chicago without transshipment. It is computed to carry past the city of Montreal

50,000,000 cubic feet of water per minute, and to pour annually 4,300,000 million tons of water, holding in solution 143,000,000 tons of solid materials, into the sea. At Quebec the river is 1314 yards wide, but the basin below the city is two miles across, and about three quarters of a mile long. From this point to the gulf, the great river goes swelling onward, and increasing as it goes. Below Quebec the St. Lawrence is never frozen over, but in the winter the force of the great volume of water, as it ebbs and flows, detaches large masses of ice from the shores; and these being kept in continual agitation, navigation is rendered impracticable during a portion of the winter season. In the St. Lawrence "all the phenomena of a mighty river may be witnessed on a stupendous scale, its irresistible ice masses in midwinter crushing and grinding one another; its wide-spreading and devastating floods in spring; its swelling volume stealing on with irresistible power in the summer, broken here and there by tumultuous and surging rapids, or by swift and treacherous currents, or by vast and inexhaustible lakes. As it approaches the ocean it rolls on between iron-bound coasts, bearing the tributary waters of a region equal to half Europe in area." The Island of Anticosti at the mouth of the river is a large desert island, 130 miles long and 30 broad. Many other islands stud the river, some of which have a considerable population.

The Ottawa River is the second largest in Canada. Rising about 300 miles above Lake Temiscaming, it flows thence 350 miles to its entrance into the St. Lawrence at the upper extremity of the Island of Montreal. It drains in its course, by the aid of its tributaries, an area of from 70,000 to 80,000 square miles. Its width is very irregular, varying from 50 yards to 10 miles, and the river is often lost in the chain of lakes through which it runs. It has

also a number of precipitous falls, forming beautiful cascades. The water power of the Ottawa is almost unlimited, and it has been rendered navigable in places by the construction of canals to overcome the difficulties occasioned by falls and rapids. Some of its tributaries are equal in size to the largest rivers in Europe.

The Saguenay is a majestic river, and the third largest in Canada, having its *debouchure* into the St. Lawrence at the port of Tadousac, below Quebec. It has an average width of three quarters of a mile, and is navigable for large vessels 190 miles. The ebb and flow of the tide is exceedingly strong, being nearly as great at Chicoutimi, 75 miles up, as at its mouth. The banks of the river are high and precipitous, and winding as it does among the mountains with their "tall figures and dim shadows," its scenery is strikingly bold and picturesque. The Ottawa has more than thirty tributary streams.

The St. Maurice, which has been traced for a distance of 380 miles, empties into the St. Lawrence at three rivers. It drains with its numerous tributaries an area of 14,000 or 15,000 square miles. It is navigable for a few miles from its mouth; after which the navigation is interrupted as far as the Grand Piles, a distance of 44 miles, when there occurs another navigable stretch of 75 miles, on which a steamer runs. It is the thoroughfare of a great timber trade, extensive slides and booms for which have been constructed by the Government. Along the great western branch of this river there is an extraordinary chain of twenty-three lakes of immense depth. The peninsula of Upper Canada is almost destitute of navigable rivers, though watered by a number of small streams. The Thames, which falls into Lake St. Clair, is navigable for only 80 miles. The principal rivers which fall into Lake Huron, on the Canadian side, are the Thessalon, the Missisaga,

the Serpent, the Spanish, and the White Fish. The Spanish is the largest, and is navigable 35 miles for craft drawing not more than five feet of water. The others are not navigable. The White Fish River is simply a chain of lakes, the elevation of its upper waters being 1,500 feet above the level of the sea.

A full description of the great chain of Lakes is given in Chapter I. The other lakes of any extent are, Lake St. John's (the source of the Saguenay River), about 35 miles broad by 45 miles long; and Lake Nipissing, 35 miles broad by about 70 miles long. Besides these there are a number of small lakes, many of which have not yet been fully explored.

The geological conformation of Canada, so far as it has been ascertained, is in general granitic. A large portion exposes the bare crystalline sedimentary rocks—the oldest, as far as is known, in the world, called the “Laurentian Series,” after the river St. Lawrence, are developed on a stupendous scale. This series is of enormous thickness, probably exceeding 20,000 feet. Overlying the Laurentian formation, along the northern shore of Lake Huron, and many parts of Lake Superior, various slates, sandstones, and conglomerates occur, with a few bands of limestone, and thick, intercalated beds of trap; to these Logan has given the name of Huronian. In many places the series is 18,000 feet thick. In the neighbourhood of Quebec a reddish or dark grey slate generally appears, and it forms the bed of the St. Lawrence and Lake Ontario as far as Niagara. The strata laid bare in the chasm at the Falls of Niagara are, first, limestone; next, slate; and the lowest, sandstone. The upper and lowermost of these compose the secondary formations of a large portion of Canada. Slate is, however, often interposed, as at Niagara, where it is 40 feet

thick, fragile as shale, and crumbles away beneath the limestone. The whole of the peninsula of Canada West, the valley of the St. Lawrence south of the Laurentians, and the valleys and depressions in the peninsula of Gaspé, are more or less deeply covered with clays interstratified with gravel which belong to quaternary deposits, and in some parts overlaid by alluvium. The stratified clays, sands, and gravels contain, often at an altitude of 500 feet above the sea-level, the remains of many species of marine animals, identified with those now found in the Gulf of St. Lawrence. Sixty-three specimens of marine invertebrates, from the post-pliocene or pleistocene clays of the St. Lawrence Valley, have been disinterred.

On July 5, 1663, a tremendous earthquake occurred in Canada. The shocks extended over 200,000 square miles of country, and continued with great violence for fifteen minutes. Perturbations were felt for a period of six months afterwards. On the authority of a manuscript account of it in the Jesuits' College, it changed the entire face of the country, causing mountains to disappear, and forming lakes where mountains had stood before. The fountains were dried up, and the colour of the rivers changed, some of them having their waters tinged with red, others with yellow, and others—the St. Lawrence, for example—white. Two mountains are also said to have been precipitated into the latter river. The account is probably exaggerated, though in many places there occur deep fissures from six inches to two feet wide, from forty to fifty feet deep, and several miles long, which are doubtless the result of some violent subterranean action. They are frequently covered with a dense brushwood, and are therefore exceedingly dangerous to the traveller.

The MINERAL RESOURCES of Canada are immense. Iron, zinc, lead, copper, gold, nickel, antimony, and silver are found.

In the mountains north of the Saguenay, magnetic iron abounds to such an extent as to influence the needle of the mariner's compass. The Laurentian series of rocks contain immense beds of valuable iron ore, principally the magnetic oxide, several hundred feet thick. The Marmora Iron Mine, Belmont, commonly known as the Big Iron Ore Bed of Marmora, is a large deposit of this ore. It appears, however, not to be a single bed, but a succession of them (one measuring 100 feet in thickness), interstratified with thin bands of crystalline limestone and talcose slate. The breadth of the mass is eight chains. The ore contains between 60 and 70 per cent. of iron. Deposits of bog-iron ore, or limonite, in greater or less abundance, occur in patches on the north side of the St. Lawrence, and between it and the foot of the Laurentide Hills, all the way from Ste. Anne des Plaines to Portneuf, a distance exceeding 100 miles. In this area the ore seems to be most concentrated in the neighbourhood of the St. Maurice and Batiscan rivers; and iron has been smelted in the neighbourhood of Three Rivers for upwards of a century. The Huronian rocks are eminently copper-bearing, the chief deposits being about Lakes Superior and Huron. The dreary wastes northward of the former lake contain stores of copper perhaps unsurpassed in the world. At the Coppermine River, 300 miles from Sault Ste. Marie, the metal occurs in great masses in a pure state. 450 lbs. of native copper, in a single sheet, was sent as a specimen to the London International Exhibition of 1862 from the Mamainse mines of Lake Superior. The deposits of gold ascertained to exist in the eastern part of the province have repaid very fully the labour applied with judgment to the working of them. At Fief St. Charles, nuggets of native gold have been found, some of them weighing from 10 dwts. to 126 dwts.

The northern and western shores of Lake Ontario abound in salt springs, some of which are very productive. The northern shore of Lake Erie has immense beds of gypsum, and abounds in asphaltum. Peat occurs near Chambly, on the south side of the St. Lawrence. As Canada is deficient in coal, when wood becomes scarce in the progress of settlement, peat will gradually assume some importance as a fuel in many parts of the country. It occurs in great abundance in many places in the province; about 100 square miles of it extend along the south front of the Island of Anticosti. Natural springs of petroleum have long been known to exist in several localities in Western Canada. In the extreme west of the province, in the upper portion of the Devonian strata, extraordinarily productive springs have been tapped by boring to the depth of from 100 to 200 feet. Some of these send pure petroleum 30 feet above the surface of the ground, and yield, it is estimated, 15,000 barrels a day. Wells, sunk to a depth of from 40 to 60 feet through the superficial clays, encounter a stratum of gravel resting on the surface of the rock beneath, and often filled with oil. Some wells bored in 1861 are stated to have yielded from 400 to 500 barrels of oil in a week or two after having been opened. Two wells yielded together, for some months, from 20 to 25 barrels daily. Natural oil-springs occur in various other places. On the banks of the Thames they abound for a distance of four miles. The oil-bearing region has an area of 7000 square miles.

The area embraced by the crystalline rocks is about 240,000 square miles in extent, 200,000 square miles of which may be said to be incapable of cultivation. That occupied by the sedimentary rocks is about 80,000 square miles, and possesses in general a rich alluvial soil. The soils in the western part of the province are chiefly drift,

or the *débris* of the crystalline rocks of the Laurentides and of the sedimentary rocks lying to the north of any particular locality. In the extreme western peninsula the rich clays consist of remodded drift, and in the valley of the St. Lawrence, below Montreal, the clays are marine, and not unfrequently contain a considerable portion of calcareous matter. On the south shores of the river, below Quebec, the soil consists chiefly of the *débris* of the red slates which are found in that region. The area covered by arable soil in the rocky region of the Laurentides is comparatively small, the fertile belts or strips consisting either of drift or the ruins of limestone rock.

The western peninsula has been called the garden of Canada. It has an excellent soil, well suited to the production of every kind of grain, especially to the growing of wheat. It has but little waste land, and the greater portion is under careful cultivation. The valleys and slopes of the hills in the peninsula of Gaspé have generally a rich soil, free from stones; but the inequalities of the surface, and the steepness of the hill-sides, even where the mountains do not extend, are often such as to prevent cultivation. That portion of the peninsula which fronts on the county of Bonaventure possesses a surface and soil as favourable as any portion of Lower Canada; good crops of grain can be raised at an elevation of 1000 feet above the level of the sea.

The valley of the St. Maurice is estimated to contain 3,500,000 acres of arable land, that portion lying along the river being very fertile. Along some of the branches are fine stretches of table-land. On the north-east side of the Ottawa is a strip of low land of exceedingly good quality, from four to six miles wide, and extending 120 miles above the city of Ottawa. Settlement is now chiefly directed to the extensive district on the south-west side of the Ottawa

River, between it and Georgian Bay. This region, extending 200 miles above the city of Ottawa, is 200 miles wide at its lower end, 100 miles at its upper, and contains large and continuous tracts of fertile land. It is divided into districts named "Red Pine," "White Pine," and "Hard Wood," from the prevalence of those woods in the respective localities. The Red Pine country is sandy and poor, with a rugged uneven surface, and is pronounced to be, except in a few places, unfit for settlement. The White Pine country, which lies to the east, contains good land, generally fit for agricultural purposes. The Hard Wood district is unfit for settlement, except between Lake Nipissing and Lake Opeongo. Between the Batchewana and Goulais Bays, and the Missisaga, the country is fine, presenting broad flats of a deep alluvial soil. The whole country where it has been explored, between Lake Superior and Lake Nipissing, presents among the rugged and broken portions that occur occasionally, many extensive valleys of excellent land, well adapted for settlement, the finest land in the whole distance being that between the Batchewana Bay and the Missisaga River. North of Lake Huron the valleys are a deep deposit of decomposed vegetable matter, with a subsoil of blue clay. The greater portion of the land is thickly wooded with pines, ash, maple, butternut, walnut, cherry, bass, sycamore, button wood, alder, willow, cedar, tamarack. Flowers and shrubs of great beauty and variety abound. Among the wild fruits are the cherry, grapes, black and red currants, gooseberries, raspberries, cranberries, plums, and strawberries. Nearly all vegetables and fruits of temperate climes thrive in Canada under proper cultivation, particularly in the western region. In the southern districts peaches and apples are produced in great abundance, and pumpkins and squashes grow in the open fields.

The wild animals are gradually retreating before the advancing settlements. Formerly the whole of Canada formed a vast hunting ground, now, however, the bears, wolves, and foxes are gradually disappearing, as well as the smaller animals, such as beavers, martens, minks, marmots, and musk-rats. A large number of these are trapped for the sake of their furs. Deer are still abundant, and black squirrels are extremely so. The brown hare, a native of Canada, is about the size of an English rabbit; in winter the colour of its fur changes to white. Swans, turkeys, woodcocks, and snipes are occasionally met with; pigeons are numerous in spring and autumn, also ducks and geese. There are numerous eagles, kites, hawks, herons, bitterns, and crows; and beside these are many beautiful smaller birds. Wild bees are found in large numbers in the woods and forests. In the lakes and rivers a variety of fish are caught, the principal being the sturgeon, salmon-trout, white-fish, pike, pickerel, and bass.

The climate of Canada is exceedingly varied, though on the whole it is much colder than that of Europe in the same parallels. In the neighbourhood of the great lakes the temperature is milder than in more remote localities. The prevailing winds are north-east, north-west, and south-west. "The general salubrity of the province," says Mr. Hogan, "is sufficiently proved by its cloudless skies, its elastic air, and almost entire absence of fogs. The clearness of the atmosphere has a most invigorating effect upon the spirits. The winter frosts are severe and steady, and the summer suns are hot, and bring on vegetation with wonderful rapidity. It is true that the spring of Canada differs much from the spring of many parts of Europe; but after her long winter the crops start up as if by magic, and reconcile her inhabitants to the loss of that which, elsewhere, is often the sweetest season of the year. If,

however, Canada has but a short spring, she can boast of an autumn deliciously mild, and often lingering on with its Indian summer and golden sunsets, until the month of December. A Canadian winter, the mention of which some years ago, in Europe, conveyed almost a sensation of misery, is hailed rather as a season of increased enjoyment than of privation and discomfort by the people. Instead of alternate rain, snow, sleet, and fog, with broken up and impassable roads, the Canadian has clear skies, a fine, bracing atmosphere, with the rivers and many of the smaller lakes frozen, and the inequalities in the rough tracks through the woods made smooth by snow, the whole face of the country being literally macadamized by nature for a people as yet unable to macadamize for themselves."

Canada is essentially an agricultural country. A rapid improvement in the manner of cultivation is taking place, in furtherance of which numerous agricultural societies are established for the encouragement of scientific farming. Government have also from time to time granted assistance, and has endeavoured to foster the agriculture of the country by the passing of various acts, and the formation of an agricultural Bureau. The number of occupiers and acres in 1851 and 1861 were as follows:—

	1851.	1861.
Occupiers.....	195,684	237,654
Amount of land held..	17,939,796	23,730,425 acres.

Improved farms are sold at prices varying from £2 to £20 an acre, according to the quality and situation of the lot, and the value of the houses, barns, stables, fences, etc., upon them. Land adapted for farming purposes can seldom be obtained from land companies, speculators, or private individuals, under twenty shillings an acre; but Crown lands can be purchased at an average price of four shillings per acre. Every purchaser, however, must be-

come an actual settler, and have under cultivation at least ten acres out of every hundred within four years. The purchase-money of the Crown lands is payable in five or ten years, and many private holders dispose of their lands on a credit of *twenty years*, the purchasers paying yearly interest, and having the power of completing the purchase at any time. In order to encourage immigration the Government offers Free grants of 100 acres of land to settlers on the following conditions:—

1st. That the settler be 18 years of age; that he takes possession of the land allotted to him within one month; that he puts into a state of cultivation twelve acres of land in the course of four years; and that he builds a log house, twenty by eighteen feet, and resides on the lot until all conditions are fulfilled. Families may reside together in one lot, and do not require to build houses on each of their lots.

The chief grain crops are oats and wheat. Potatoes and peas are also raised, and a considerable quantity of maple sugar is made. The following table shows the value of the grain and other staples for 1861, grown in Upper and Lower Canada respectively:—

	Upper Canada.	Lower Canada.
Wheat fall	7,537,651 bushels	65,630
Wheat spring	17,082,774 „	2,588,726
Barley	2,821,962 „	281,674
Rye	973,181 „	844,192
Oats	21,220,874 „	17,551,296
Buckwheat	1,248,637 „	1,250,025
Indian corn	2,256,290 „	334,861
Peas	9,601,396 „	2,648,777
Beans	49,143 „	21,384
Potatoes	15,325,920 „	12,770,471
Turnips	18,206,959 „	892,434
Carrots	1,905,598 „	293,067

	Upper Canada.	Lower Canada.
Mangel-wurzel	546,971 bushels	207,256
Grass and clover seed	61,818 „	33,954
Hay	861,844 tons	609,977
Hops	247,052 pounds	53,387
Flax and hemp	1,225,934 „	1,231,975
Maple sugar	6,970,605 „	9,325,147
Cider	1,567,831 gallons	21,011
Garden and orchard products }	1,304,145 dollars	884,659

The value of the live stock in 1861 was in Upper Canada \$52,227,486 (£10,445,497); in Lower Canada, \$25,751,798 (£5,156,359). The animal products were as follows:—

	Upper Canada.	Lower Canada.
Beef	67,508 barrels	67,054
Butter	26,828,264 pounds	15,906,949
Cheese	2,687,172 „	686,297
Wool	3,659,766 „	1,967,388
Pork	336,744 barrels	196,598

Manufactures are making considerable progress. The cutting and preparing of timber for market is the principal industry, and “lumbering,” as it is called, employs not less than twenty-five thousand persons. Government works, technically called “slides,” have been constructed on the sides of the falls on the great rivers down which the timber is floated. The greater portion is exported to England. This class of exports in 1861, probably representing about three-fourths of the value of the whole produce, was \$9,572,645 (£1,914,529). The “home-made” goods manufactured by farmers’ families were as follows:—

Fulled cloth	1,394,711 yards.
Flannel	2,827,489 „
Linen	2,247,377 „

A reciprocity treaty was entered into between the United States and Great Britain on June 5, 1854, and proved fruitful of benefits to both countries. The following is a brief summary of its provisions:—I. It gave the inhabitants of the United States the right to take fish of any kind in the waters of any of the British provinces, without restriction; and permission to land on the shore for the purpose of drying their nets and curing fish. II. It gave British subjects the liberty to take fish on the eastern coasts and shores of the United States north of 36° parallel, with the same privileges as to landing. III. Certain articles, as grain, flour, breadstuffs, annuals, meats, lumber, poultry, wool, ores manufactured, tobacco, rice, being the growth of British colonies or of the United States, are admitted free of duty, respectively. This treaty was suspended in 1866, at the requisition of the United States.

The trade of Canada is chiefly with Great Britain and the United States, the latter having the largest share. In the year ending June 30, 1865, the imports into Canada were of the value of \$44,620,000 (£8,914,000). The exports amounted to \$42,481,151 (£8,496,230), about half of the amount going to the United States. The following table shows the relative value of the various articles making up the total:—

Products of the mine	\$575,000
Fisheries	89,000
Lumber	5,000,000
Animals and animal products ...	7,000,000
Agricultural products	8,300,000
Bullion	1,600,000
Miscellaneous	300,000

\$22,864,000 (£4,572,800)

The products of the mines for 1861 were—

	Tons.	Value.
Copper, native ...	18	\$2,414
„ ore.....	7364	440,130
Iron ore	932	2,430
Pig-iron	321	5,759
Stone	—	4,230
		<hr/>
Total		\$454,963 (£90,992)

The fisheries, embracing the Gulf of St. Lawrence and the lakes, employ from 1200 to 1500 boats, and about 100 vessels. The following quantities and values of fish were exported in 1861 :—

Dried fish.....	143,783 cwts.	\$420,631
Pickled fish ...	86,084 „	203,451
Fresh fish ...	—	16,426
Oil	506,027 gals.	255,356
		<hr/>
		\$5,476,006 (£1,095,201)

The European population of Canada consists of two classes. The French inhabitants, who were found in the colony when the English took possession, constitute about five-sixths of the population of Lower Canada, while Upper Canada is almost exclusively occupied by the later immigrant population, chiefly of British origin. Both classes have increased rapidly, especially within the last fifty years, or what may fitly be termed the emigration era.

In 1622 Quebec contained only 70 persons. Fifty years afterwards the population of Canada amounted to about 10,000, and from that time it steadily advanced. In 1800 it was estimated at 240,000, in 1825 it amounted

to 581,920, and in 1851 to 1,842,265. The census of 1861 gives the total population as follows:—

Upper Canada	1,396,091
Lower Canada.....	1,111,566
	<hr/>
	2,507,657

Within the ten years ending with the census year the increase was at the rate of 42·4 per cent. It is estimated that in January, 1864, the population amounted to 2,783,079, or about eight to the square mile—the rate of increase being about 4·34 per cent. in Upper and 2·50 in Lower Canada.

A large emigration to Canada is continually taking place from various European and other countries. The following is a table of the nativities of those immigrants who landed between the years 1857 and 1860:—

	1857.	1858.	1859.	1860.
England	15,471	6,441	4,846	6,481
Ireland.....	2,016	1,153	417	376
Scotland	3,218	1,424	793	979
Germany	4,961	922	966	533
Norway	6,407	2,656	1,756	1,781
Other countries	24	214	...	...
	<hr/>	<hr/>	<hr/>	<hr/>
	32,097	12,810	8,778	10,150

In 1864 the number of steerage immigrants who arrived in Canada was estimated at 34,779. In both sections of the Canadian territory small bodies of Indians remain, and some of these have made considerable advancement in the arts of civilization. This is especially the case in Upper Canada, where unusual care has been taken to pro-

tect them from imposition, and provide for them regular means of support. The number of Indians, including the wandering tribes, is estimated at about 15,000. The negro population, which numbers 7500, consists principally of fugitives from the late slaveholding section of the United States.

The political constitution of Canada is based upon the Act 31 Geo. III. cap. 31, passed by the Parliament of Great Britain in 1791. A final modification of this by an Act passed in 1853 comprises the fundamental laws now in force. The charter vests the legislative authority in a Parliament of two houses. The Legislative Council consists of twenty-four members nominated for life by the Governor, and of forty-eight members elected by the people; and the House of Assembly consists of 130 members, chosen in 125 electoral districts and boroughs. Members must be possessed of freehold property to the value of £800. They have an allowance from the public funds during the session. The House is elected for four years, but may be dismissed before the expiration of that time by the Governor, in which case a new election immediately ensues. The Speaker of the House is elected by the members, and has a salary of £800 per annum. The President of the Legislative Council is elected for life, with a salary of £1250. Clergymen of all denominations are prohibited from becoming members of the Legislature. The executive is vested in a Governor-General, appointed by the Crown. He is styled "Governor-General of British North America," and has a salary of £7000 per annum. His authority is held in the name of the Sovereign of Great Britain, and he has the power of giving or withholding his consent to bills passed by the Parliament, and such bills as are assented to by the Governor may be disallowed by the Sovereign. The Governor-General is assisted by a Council or Cabinet,

consisting of twelve members, each of whom receive a salary £1250 per annum.

As a part of the British Empire, Canada enjoys perfect religious, social, and political freedom. Three years' residence entitles a foreigner to all the rights and privileges of a natural-born citizen. Aliens can buy, hold, and sell land. The elective franchise is nearly universal, every man paying an annual household rental of \$30 (£6) in the cities and towns, and \$20 (£4) in the rural districts, being entitled to vote. The municipal system is admirable. The counties are divided into townships of about ten miles square. The inhabitants of a township elect annually five councillors, who elect from their number a presiding officer, designated the Township Reeve; the reeves and the deputy reeves of the different townships form the County Council; this council elect their presiding officer, styled the Warden. In each county there is a judge, a sheriff, one or more coroners, a clerk of the peace, a clerk of the county court, a registrar, and justices of the peace, who are appointed by the Governor in Council. All township reeves, wardens, mayors, and aldermen are, *ex officio*, justices of the peace.

Educational facilities are rapidly increasing through the development of a free school system, open to all, and sustained partly by a general tax and partly by local self-imposed taxation, and occasionally by the payment of a small monthly fee for each scholar. Each school section is governed by an elective corporation, styled School Trustees, and is supplied, partly at Government expense, with a small library of select literature. Grammar schools are rapidly improving in character, while numerous colleges and universities place professional training and instruction in the higher departments of learning and science within the reach of the possessors of moderate means. The num-

ber of educational establishments in 1864 was 4225, with 371,695 pupils.

The number of members of each religious denomination, according to the census of 1861, was as follows:—

Religious Denomination.	Upper Canada.	Lower Canada.
Church of England	311,565	63,487
„ Rome.....	258,141	943,253
Presbyterians—		
Church of Scotland	108,963	23,730
Free Church of Scotland.....	143,043	14,856
United	51,378	5,149
Methodists—		
Wesleyan	218,427	25,957
Episcopal	71,615	2,537
New Connection	28,200	1,292
Other.....	23,330	874
Baptists	61,559	7,751
Lutherans	24,299	857
Congregationalists	9,357	4,927
Quakers	7,383	121
Bible Christians	8,801	184
Christians	5,018	298
“Second Adventists”	1,050	2,305
Protestants	7,514	2,584
“Disciples”	4,147	5
Jews	614	572
Menonists and “Tunkers”.....	8,965	.....
“Universalists”	2,234	2,289
Unitarians	634	652
Mormons.....	74	3
“No religion”	17,373	1,477
Denomination not stated	8,121	5,728
Other creeds not classed	14,286	678
Total...	1,396,091	1,111,566

The greatest toleration is allowed in religious matters. “While, however, all religions are respected by law and by the people, there are strict distinctions jealously preserved between churches of different denominations. In Lower Canada the population are almost all Roman Catholics; while in Upper Canada the population are

nearly all Protestants. Ministers of every sect are marked by earnestness and zeal in the performance of their religious duties, and in no country, not even excepting Scotland, is there to be found so uniform an observance of the Sabbath in accordance with strict Protestant views."

In 1864 a Prohibitory Permissive Bill passed the Canadian Legislature, and received the royal assent. The act allows town councils to pass a by-law prohibiting the common sale of intoxicating liquors. It also enables the electors of any place, on a requisition with certain signatures, to demand a poll for passing such by-law independently of the municipal council—a majority of votes to carry or defeat the by-law. The law is prohibitory except, so far as it enables brewers, distillers, and merchants, to sell in quantities of not less than five gallons, or twelve bottles. It is therefore a law permitting municipal by-laws to prohibit all sale for consumption on the premises, and all retail sale for consumption off the premises.

Numerous railways have been constructed in Canada, and are generally connected with the railways of the United States. The first, completed in 1837, extended from Lapraire, on the St. Lawrence, to St. John's, a village on the Richelieu River, sixteen miles. In 1845, the St. Lawrence and Atlantic Railway was chartered, and was the beginning of the now extensive line known as the Grand Trunk Railway of Canada, which, with its branches, has a length of over 900 miles. The following table shows the progress of railway construction for the ten years ending 1861:—

Year.	Miles.	Year.	Miles.
1852	286	1857	1,601
1853	668	1858	1,683
1854	919	1859	1,818
1855	1,172	1860	1,894
1856	1,501	1861	1,975

The total cost of the same has been about \$123,500,000 (£24,700,000), or \$60,688 (£12,137) per mile.

The CANALS of Canada have been constructed chiefly with a view to overcome the falls and rapids of the great rivers, and open up an uninterrupted navigation to the commerce of the country. The Rideau Canal is the largest, being 126 miles in length. The total number of miles in operation in 1861 was 243.

The ELECTRIC TELEGRAPH passes through every town and almost every village; the number of miles in operation in 1861 being 4046. Everywhere postal communication is complete. The most distant hamlet has its post office, the number of offices in Canada being about 1974.

Quebec, until recently one of the seats of the Colonial Government, is the chief city and seaport of Canada. The city stands on the north-west bank of the river St. Lawrence, and occupies an elevated angle formed by the confluence of that river with the St. Charles. The citadel occupies the summit of this angle, whence the town extends north-westerly to the river. The Upper and Lower Town, so called on account of their relative elevations, are united by a winding street and flight of steps. The city was founded in 1608 by the geographer Champlain. It fell into the possession of the British in 1619, but was restored three years later. The English made an unsuccessful attempt to regain possession in 1690; however, it did not finally come into their hands until taken by General Wolfe in 1759. Two destructive fires swept away the distinctive features of the old town, and broader streets and better-ventilated houses have taken their place. The citadel is a massive defence. Its impregnable position makes it perhaps the strongest fortress on the continent, and the name of the "Gibraltar of America" has been often given to it. The access to the citadel is from the Upper

Town, the walls of which are entered by five gates. The churches, chapels, and public buildings are substantially built; the educational institutions are numerous, and ably conducted; several newspapers are published, and widely circulated; and European literature has lost none of its interest. The majority of the inhabitants are of French origin.

Montreal, the most populous city in British North America, is picturesquely situated at the foot of the Royal Mountain, from which it takes its name, upon a large island at the confluence of the Ottawa and St. Lawrence. The population is over 75,000, and steadily increasing. The houses in the suburbs are handsomely built in the modern style. Including its suburbs, of which it has several, the city stretches along the river for two miles, and extends between one and two miles inland. It was formerly surrounded by a battlemented wall; but this having fallen into decay, it is now entirely open. The quays are unsurpassed by those of any city in America; built of solid limestone, and uniting with the locks and cut stone wharves of the Lachine Canal, they present for several miles a display of continuous masonry. A broad terrace, faced with grey limestone, the parapets of which are surmounted with a substantial iron railing, divides the city from the river throughout its whole extent. Montreal was, until 1849, the seat of the United Canadian government. A riot which occurred in that year, and resulted in the burning of the Parliament House, occasioned the transfer of the seat of government to Quebec and Toronto. Toronto, the metropolis of Upper Canada, is on the north shore of Lake Ontario. The city, which is in the form of a parallelogram, is built with great regularity, and the streets are generally well paved, spacious, and lighted with gas. The houses are substantial, and the principal thoroughfares present in many parts an elegant appearance. The public

buildings are numerous; those especially worthy of attention are the Episcopal and Roman Catholic cathedrals, the City Hall, and the Normal and Training Schools. The other important edifices are the University and Colleges, the Parliament House, the Observatory, Athenæum, etc.

Ottawa, is a prosperous and growing city, situated amid delightful scenery. It has been selected for the capital of Canada. The parliament buildings in course of erection are exceedingly handsome. The estimated cost of their construction is £75,000.

THE END.







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